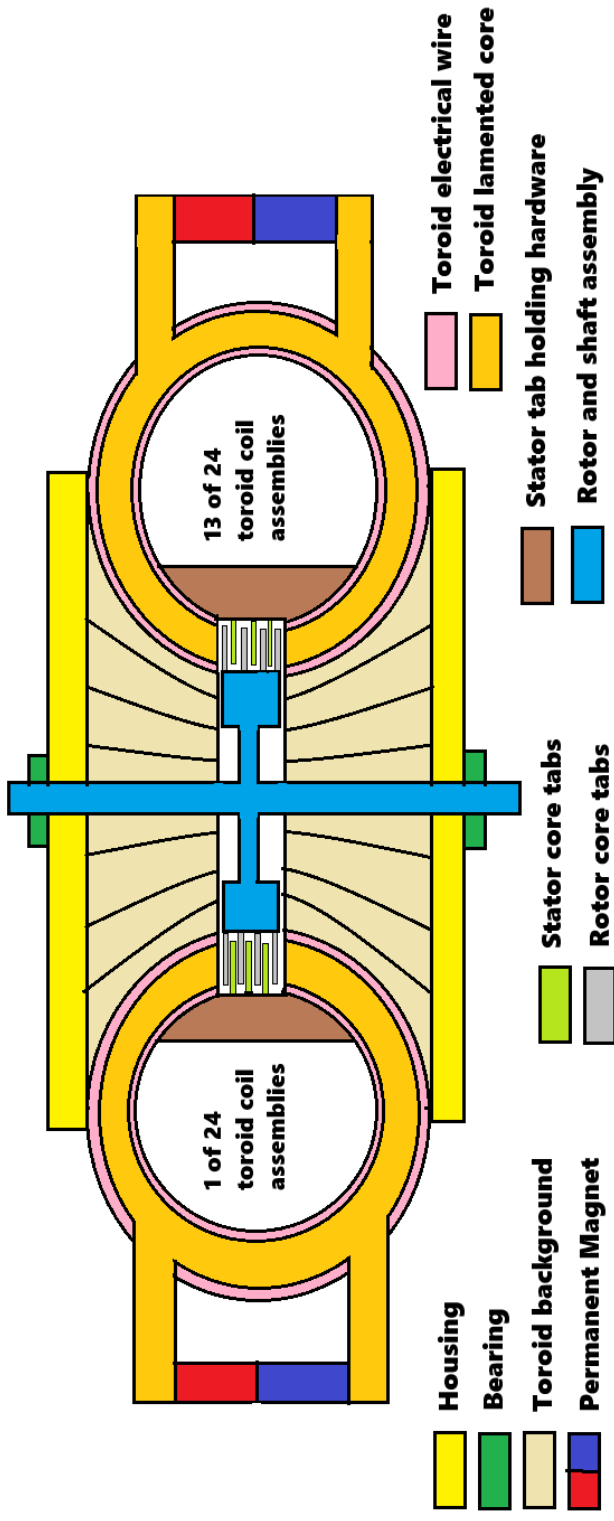


New Torque Amplification Toroid Motors both with and without Electrical Power

By Jay Lunke

Three torque amplification technology motor



1. Torque amplification through laminated toroid core allowing many times the flux to flow through the coil. 2. Torque amplification with the permanent magnet assist adding flux into the toroid gap area when the coil power is turned on. 3. Torque amplification through the layered gap area additional stator and rotor tabs that over double the torque from the same level of flux through the toroid gap area.

Lower input power due to the efficiency of toroid coils. Less flux leakage due to the toroid coils. very little change in input power with changing loads on the motor shaft due to the motor design. This motor design is theory and needs to be built and tested for its performance.

Jay Lunke 9-4-2023

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Permanent Magnet Core Material Active Switching Motor

Jay's testimony

Disclaimer: My designs are open source, but I have not performed an in-depth search to see if someone else has been doing the same work as I have been doing. You need to perform your own search before using my designs. Also, all my designs are theory only at this time. I will always say they are theory even with a working model in order to protect myself.

Introduction:

My name is Jay Lunke. I have had an interest in free energy devices off and on since I was in high school. I first got interested when I was in one of my classes. I learned about the basic operation of the electric motor. I thought there has to be a better way to design a motor than the design in the text book. At the time I did not know that there were several hundred other motor designs that were out there. I am glad I did not know that because otherwise I may not of had an interest in improving motor designs. I bought several small rectangular permanent magnets to play with. For me nothing is more educational than hands on experience with handling the hardware. I was amazed to have one magnet in one hand with a second magnet in the other hand to feel the power of the magnets to each other. This would make me wonder how I could use this power in a motor design that did not need an outside energy to power it. I have to admit that most of my early creative energies were to come up with a design with no electrical energy power input to the motor.

Over the years of working with magnets, I decided that even if I came up with a self-running all permanent magnet motor, that the power output for the cost to build the motor would be too great for the average person to be able to purchase. I have some of those motor designs in earlier

books I have written. I have not personally built a successful all permanent magnet motor yet, but I have not built prototypes from all of my motor designs. I have only built a few of my designs into prototypes.

I used electromagnets with permanent magnets in my next round of designs. The reason I did this is because electromagnets can switch their magnetism on and off. I worked on designs that would use torque from more permanent magnets than electromagnets. The reason for this is because you use electrical energy to power the electromagnet, but the torque in a permanent magnet is free.

My five to one, permanent magnets to one electromagnet motor design for sure should be an over unity device. The torque from six devices to turn a rotor by only having to power one of those devices in my mind has to be more power than the losses in that system.

Now the down side of most of my early motor designs using electromagnets is that the electromagnet had to be an air core electromagnet in order to prevent negative torque in the motor movement from happening during the rotation of the rotor assembly. The core material in the electromagnet could create that drag or negative torque for the rotor rotation when the power to the electromagnet is turned off. The down side to coils without normal core material in them is that coils with air gaps cannot produce

as much torque in them as a coil with normal core material in it. Different core materials and designs can make a large difference in the strength of the coils and the final product. This book has many new designs that use electromagnets with cores in them.

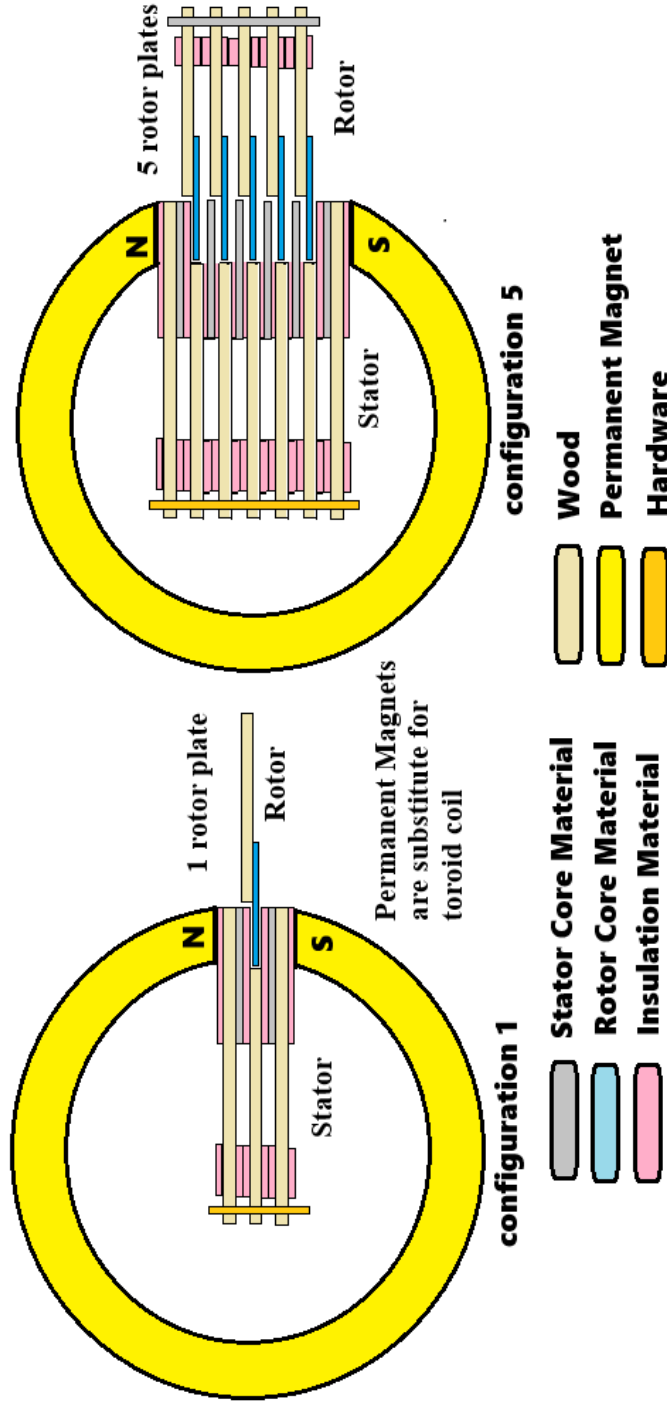
The key to a successful over unity system is that the open system output torque requires a smaller input torque produced by the electromagnets, than the output torque produced by the system. This larger torque in turn produces more output electrical energy than the electrical energy fed to the over unity system. The permanent magnets in these systems are a second source of torque for some of these systems. The torque from permanent magnets working with the torque from the same number of electromagnets should be enough to be an over unity device in a great motor design. But I have not seen a verified magnetic motor design having a one-to-one, PM to EM, ratio achieving over unity status yet. That does not mean that they are not out there. I have designed motors with a lot greater torque ratio than that. The same is true for my generator designs written in some of my other books.

In case my designs with greater PM to EM ratios than one to one was not enough to generate over unity, I looked for even more ways to improve my motor designs. I was working with different coil designs to be used as loads when working on different generator designs and found out that the toroid coils would function a lot different than other coil

types. The reason for this is that the core for most of the toroid coils are built in a ring so that the flux continues to flow around in the same core path. The impedance of the toroid coil measures a lot more in it than other coil types. What this means to me is that the toroid coil will produce more torque for the same amount of electrical energy than other coil types. The toroid does not have to be round. It can be in a square shape and the coil will function pretty much the same way as the conventional toroid coil. Now days to design motors with coils that function like a toroid coil has become a goal of mine.

There has been work by other people that are now selling products that are free energy devices. They claim that the materials that are used in the core amplifies the torque of their devices. More flux in a coil is widely known by the testing that has been done on coils. The core material in transformers does not produce free energy. So, my first question is how do the materials in a motor design make a big difference in achieving over unity in electromechanical devices? I am still learning.

Test for torque amplification when using more rotor and stator plates.



This drawing shows the crude fixture I built to prove the amplification of torque using multiple layers of rotor tabs moving through stator tabs. There is an additional wood piece on each side of the gap area the prevented the permanent magnets from crushing the tabs in the fixture. Electricians tape was used to insulate the stator tabs from physically touching the rotor tabs. The test results could be different with a better fixture, materials and spacing. The 4 rotor tabs tested at 228% of the single rotor tab test.

Jay Lunke 9-3-2023

The drawing above will help you to visualize the following paragraphs.

In theory, core materials when subjected to a magnetic field become or take on the characteristics of a magnet. The majority of these magnetic characteristics leave the core material when the field is removed.

When there is a space in the core, the flux moves through the air gap to the next part of the core material. This gap does reduce the amount of flux flowing through the coil. In a toroid coil, there can be several gaps in the core and the flux can move from core to core jumping across each of the air gaps.

When the core of a toroid coil is broken up into different pieces, the core pieces will want to align up with each other to create the easiest path for the flux to flow in the core materials. As this happens, each core piece will have magnetic poles at their ends. When the core pieces are not in alignment and the power to the coil is turned on, then as each core piece has flux flowing through them, there will be a torque between each of the core pieces in order to bring the core pieces into alignment with each other.

When the power is turned on to a properly designed device, it will cause all the pieces to form a functional toroid coil, aligning all the core pieces into one large functional toroid coil shape and function.

The pieces can be designed so that half of them would be mounted on the stator and the other half on a rotor, so that when the power is turned on, several torque points are created to bring all the pieces into physical alignment with each other in order to create one functional toroid coil.

There is a good chance that each additional torque in the functional toroid coil assembly will have a minimal effect on the amount of electrical energy to drive that coil assembly. This means that more core sections in the stator and rotor portion of each coil circuit in the motor will amplify the torque created by the electrical energy. But each core section also produces another air gap. Each air gap reduces the flux through a functional toroid coil. Now if the power increase of each core piece produces more torque in the coil than the reduction produced by the additional air gaps of the toroid coil, then there should be a place where the COP becomes greater than 1 with the increase of additional core pieces in the coil. **I performed testing and will talk about it later in the book.**

Now there are two major ways that the electrical energy to operate a motor needs to be designed for optimal performance in a motor design. First is the optimization of the drive signal and second is to recapture the energy from the collapsing magnetic field in the core material.

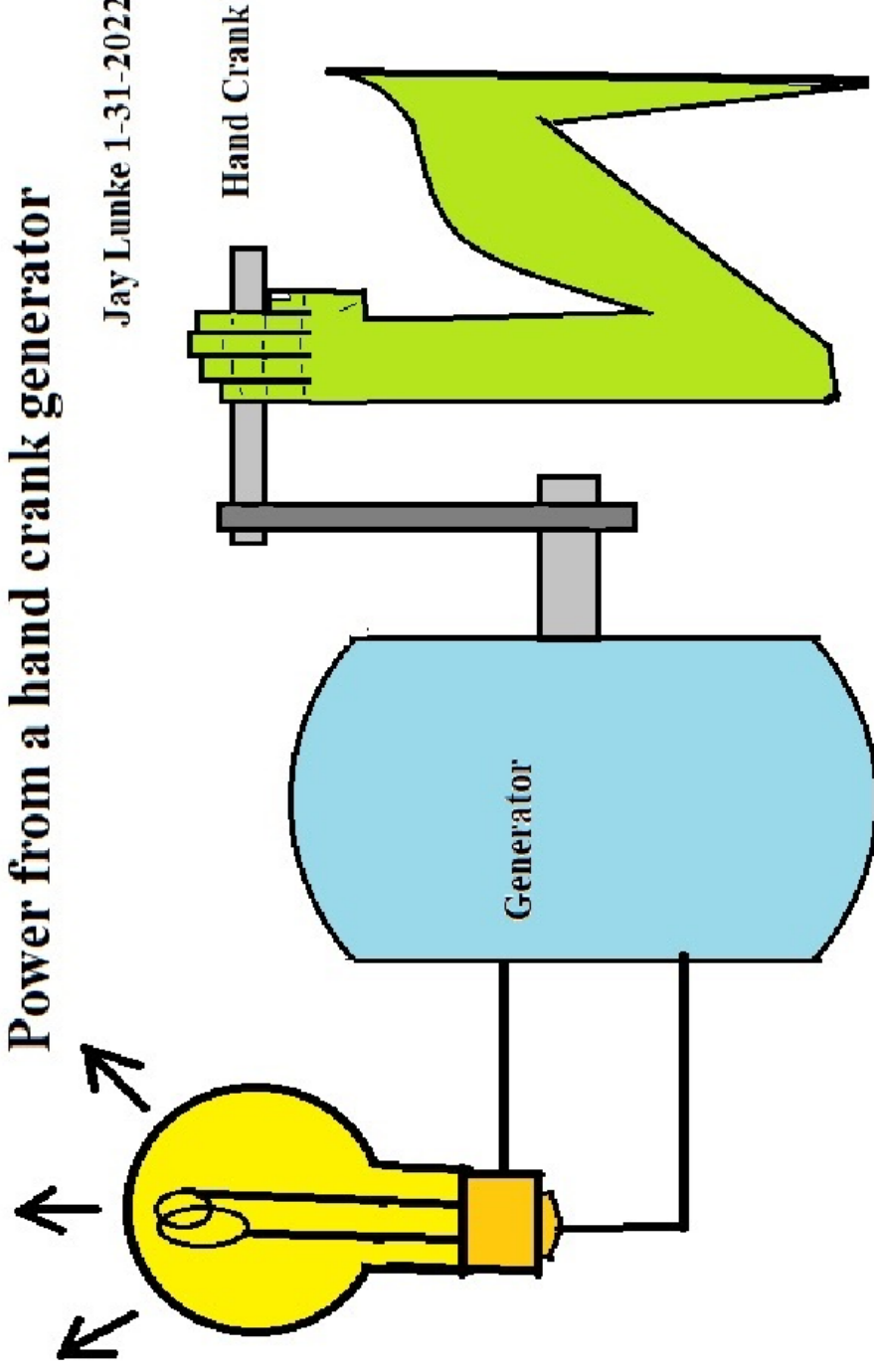
All this and more will be addressed later on in this book.

For the next question, few people have an answer to it.
Where does the electrons come from in a generator?

This is one theory that many people have written or spoken about. Note that it is not the most popular theory taught today, but it is interesting. In looking at the drawing below, the hand does not provide the electrons that goes to the light bulb. The hand does provide the torque required in the common electric generator. The light bulb in the drawing is a load for the circuit. This load converts the electrical energy into light in the system. This is one form of work that electrical energy can perform. Along with that light is heat. Without the torque to turn the generator, the light would not come on. Now let's look at the following drawing that shows more information about the generator.

Power from a hand crank generator

Jay Lunke 1-31-2022



The lamp will light as long as the hand is cranking the generator. Where does all the electrons come from?

In the next drawing, the rotor is a magnet on a shaft. The stator has the coils in it. As torque is applied to the generator, the permanent magnets rotate inside the stator that has the electrical coils in it. This movement causes electrons to build up in the generator. The faster the shaft is rotated in the generator, the higher the voltage will be. If more of a load is added to the generator, the more torque will be required to turn the rotor in the generator.

Many people have worked on either reducing the torque that is required to produce electrical energy or increase the torque the motor produces with a smaller input power. Most of the designs in the past do not produce more output than the input to operate them. Now an open system has more than one input power that the sum of the input powers is greater than the output of the device. I will show you how I use multiple power sources in the systems, some you pay for and some you do not pay for, to create an over unity system later on in this book.

There is a limit of the electrons in the copper wire of a generator. So, the wire does not produce all the electrons from the generator to continually power a load. If the generator shaft is turned forever the electrons will continue to move to the load forever. Since the electrons do not come from the permanent magnet, copper wire or hand, then where does all the electrons come from?

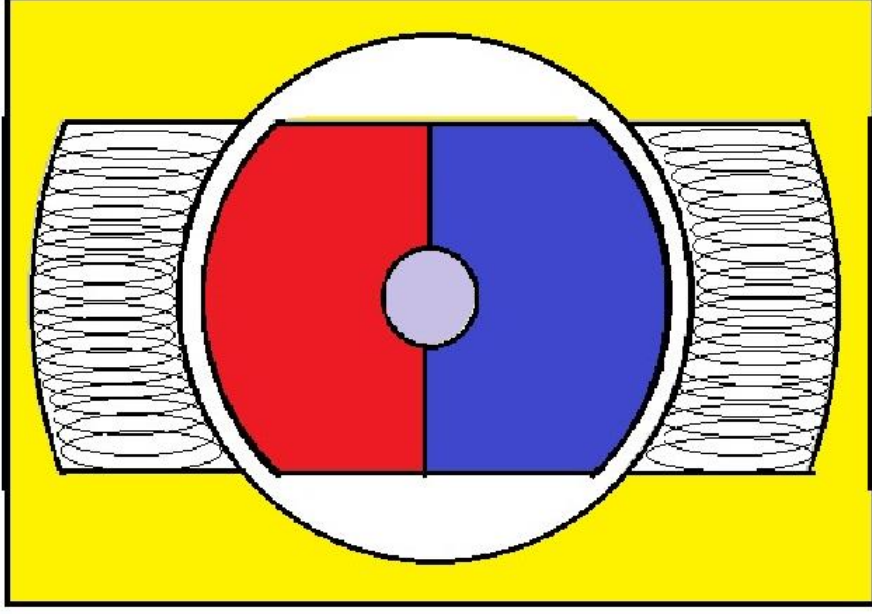
Hand Crank Generator

The hand crank generator supplies electrical energy to devices to power them.

The electrons in the copper wire of the generator can only hold a limited amount of electrons before there would be no more for the load in a hand crank.

The permanent magnets are not physically connected to the coils. Even if they were they would have a limit on electrons.

A hand will not transfer an unlimited supply of electrons to the load.



Jay Lunke 1-31-2022

Most electrical engineers are not able to tell you where the electrons come from in a hydro dam, I do not need to tell you where the electrons come from in my motor assemblies either. But I will tell you my thoughts to the best of my ability what my and many other people believe how this process works.

The next two drawings are an attempt on my part to explain the energy that many people have been talking about for thousands of years in different ways over those years.

There is a physical energy that is invisible all around us everywhere all the time. As a magnet is moved across a coil of wire, pressure measured in volts is built up. Electrons are moved into the copper wire from this massive source of energy and are pushed to the load. As electrons are moved as current toward the load, a void of electrons is quickly replaced by electrons from the “zero-point energy” or maybe even from static electricity. There may be an energy conversion from the zero-point energy to electrons. There are many names for this energy.

Pictures help me to have a better understanding of what is happening. That is why I add so many sketches to my writings.

The second drawing is a bigger picture of a simple system. It is not only the power generation, but also the work that is done in the load of a system. Now this is very

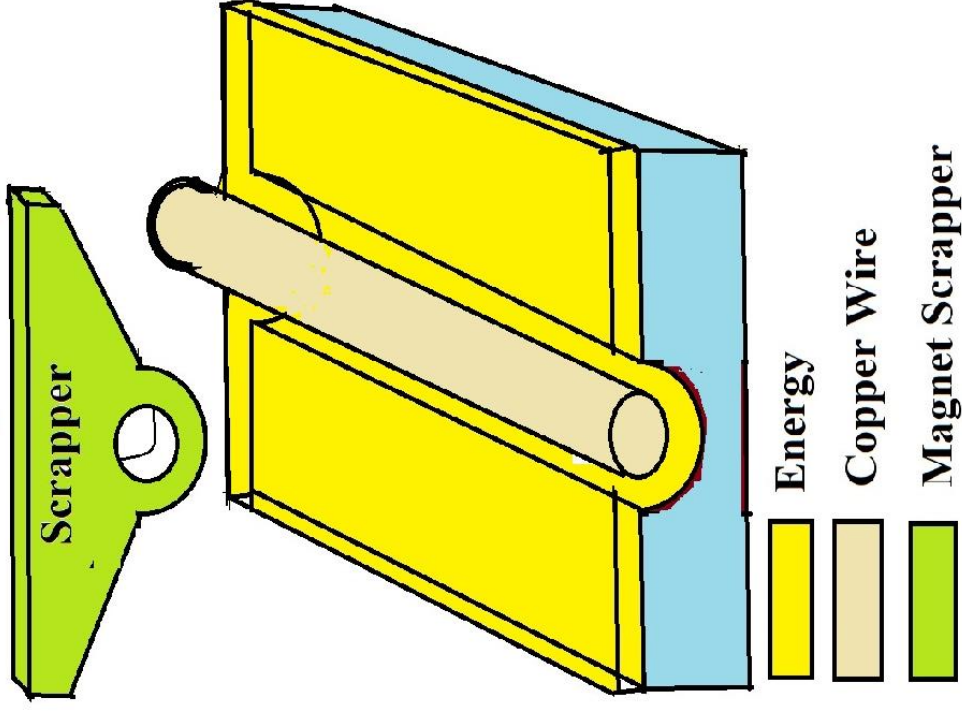
important in understanding that having this source of energy can be the second source of energy in many over unity or free energy systems.

This means that my or most of the valid over unity devices out there are not violating the first two laws of thermodynamics because they have more than one source of power in them.

There is a lot of information about this energy to be studied. knowing it is out there does not mean it is that easy to use it in a way to produce an over unity device. There are many people who are working on this. Many people believe that a permanent magnet changes the flow of this energy through its poles. The power of the magnetic field has a lot of theories of not only what the field is, but how it operates. And even using this energy, it is not easy to have more output power than input power. But we do not have to pay for either zero-point energy or the power of a permanent magnet.

For me, I do not have to be as smart as the greatest scientists to be able to use magnetic fields or zero=point energy in my motor and generator designs.

Showing how energy moves from zero point to electrical power



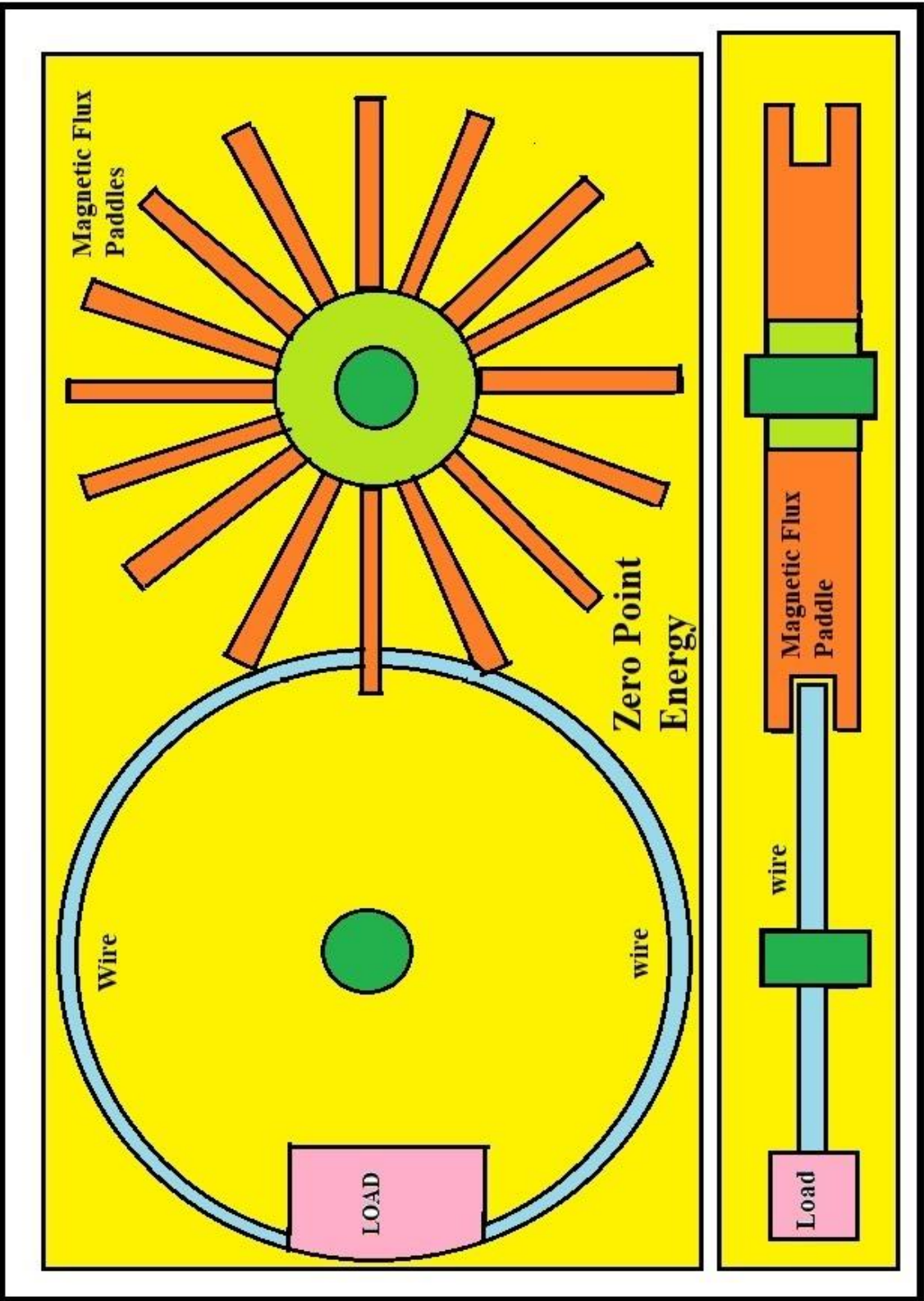
The drawing shows how the zero point energy that is everywhere, fills into the copper wire quickly after the magnetic flux field is scrapped across the copper wires as the wires feed electrical energy to the load.

The scrapper needs mechanical force to move it across the wire.

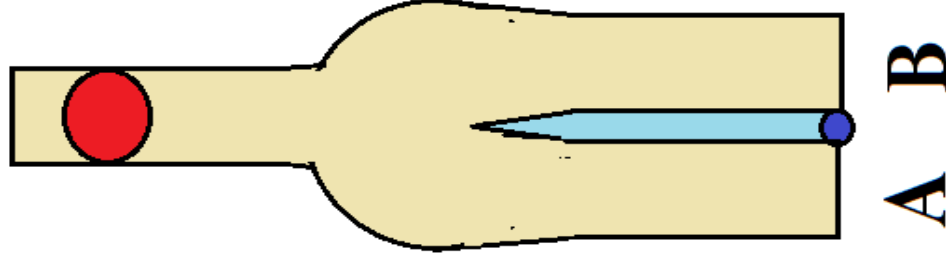
This is true of all electrical generators. The changes in load on the generator also changes the force needed to move the scrapper. This does not affect the backfill of energy back into the copper wire.

Electrical energy does not physically come from the force that moves the flux across the electrical wires.

Jay Lunke 3-2-2022



Control of Ball Path



The steel ball is dropped in a pipe that comes into a chamber where it has an outcome of two paths to travel. They are path A or path B. The ball hits the gate and there is a 50% chance it falls into pipe A and a 50% chance that it falls into pipe B. It takes a very small gate movement to the right that will cause all the balls dropped to go into path A. In the same way it takes a very little gate movement left to cause the balls to drop into the B path. This drawing shows that many mechanical controls have a smaller energy to control more energy.

Jay Lunke 3-11-22

The sketch above shows a ball that when dropped and hits a sharp point, that the ball can move either to the right or to the left side. It is like when a drop of water is dropped on the continental divide, the drop of water could either end up in the Pacific or the Atlantic Ocean.

Now the point is in a gate, a small movement in this gate determines if the ball moves either to the right or to the left side. The reason I show this sketch is because many things in free energy devices have the need of fine adjustment for proper functioning of the device. It is this characteristic that has left some designs from getting into the market place. The better designs will keep away from these situations. But with some technologies it is hard to stay away from these problems.

In summary what is free energy or over unity?

Energy cannot be created or destroyed, so what is it?

“Free Energy” has many different meanings depending who is using it. So, I will use it as energy that you do not have to pay for the usage of it. Solar is just one example of

this energy. I have been working mostly with open systems, where there is more than one input energy source to operate the device. The goal is to have more energy output from the system than the energy you pay for to operate the system. So, the second input energy has to be great enough for the system to generate a $COP > 1$.

One important thing for me is to then feedback the output energy back into the input of the system with some energy left over to operate other devices. Now there are so many videos on line claiming to already be doing just that, just to find out they are a scam. You have to be very careful in people's claims.

Permanent Magnets:

There are many types of magnets. Magnets come in several different shapes and sizes. Magnets are built of several types of materials. Magnets have unlimited applications.

The important design factors you want in a magnet when selecting one for your design are as follows:

- _1. The temperature at which the magnetism breaks down in the magnet.
- _2. The physical shock the magnet will be subject to. Magnets can lose their magnetism with physical shock applied to them.
- _3. The needed magnetic strength for the application of the device design.
- _4. Does the magnet need to be custom designed or can it be an off the shelf piece part? Custom made magnets are a lot more expensive to build.
- _5. Magnet's ability to keep its magnetism when close to other magnetic forces. Other strong magnetic forces can demagnetize some magnets.
- _6. Cost versus design, you can have a great design, but if no one can buy the device, how does it benefit you. You

may want more expensive magnets to prove the design and work on lowering the cost as a second effort.

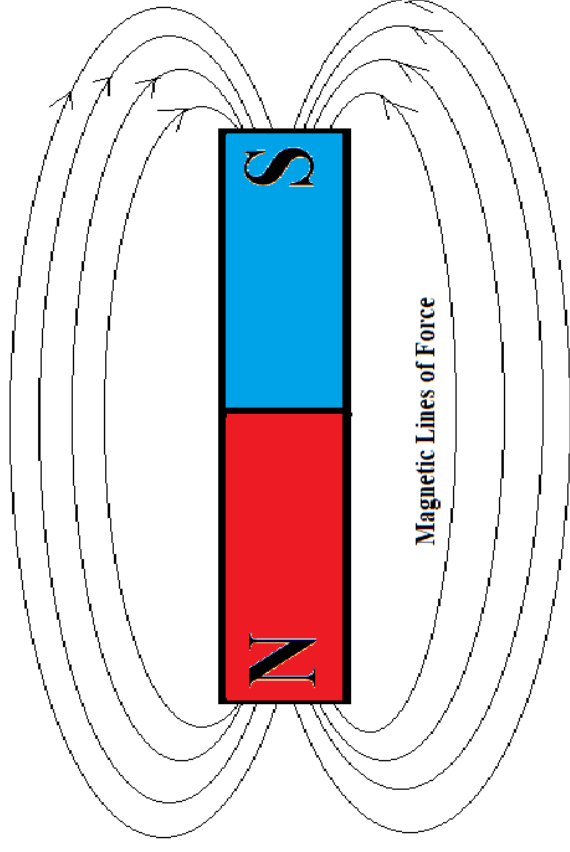
The following sketch shows the old school way of showing the way a permanent magnet functions with the flux paths flowing from the north pole to the south pole.

For my level of designing motors and generators, it is good enough. I want my writings to stay at a simple level for a larger audience to understand. I want the hobbyist to be able to understand and be able to build any of my devices. With new technologies, the more people that replicate the devices, the more established and accepted those designs become. Free energy devices will help all of us. So why not get on board and start building these devices.

Permanent Magnet

Jay Lunke

Modified 1-9-2023

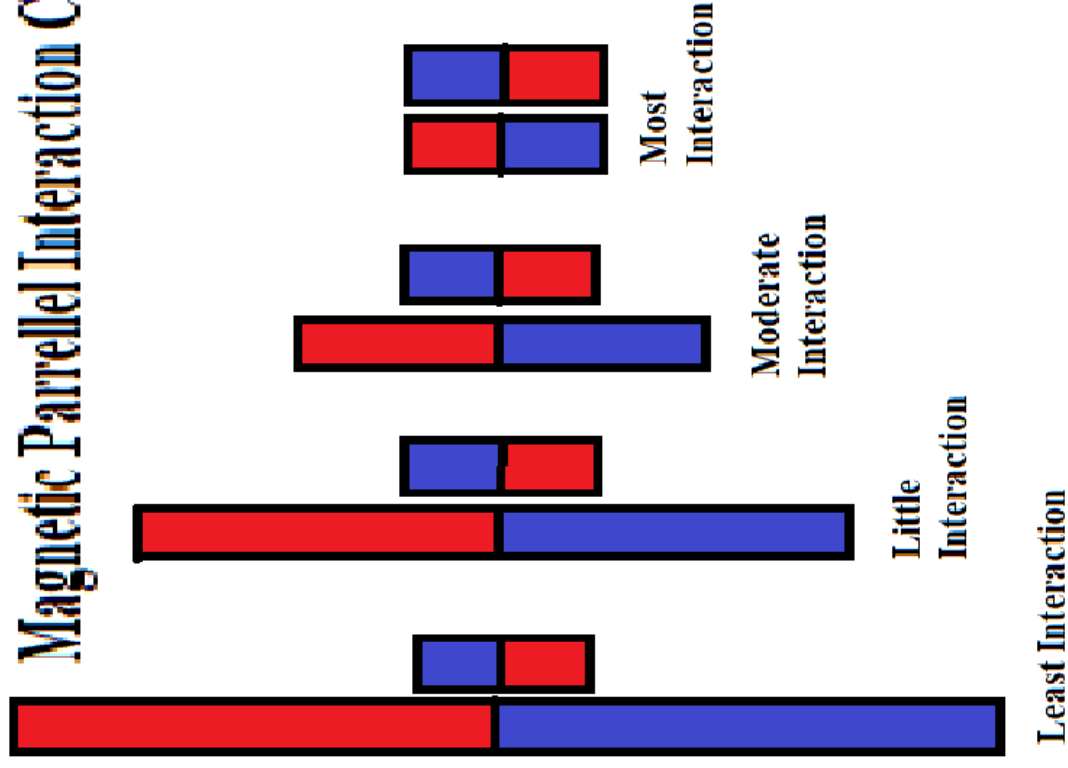


This is old book that is good enough for the hobbyist like me to perform some designs with. The magnetic forces are at the poles. The sides are limited in magnetic force with other components. The best thing about magnets is that you can feel torque from them without any outside forces to them.

Magnetic Parallel Interaction Consideration in design work

This shows that when the permanent Magnets are interacting with each other then they are side by side, the length of each of the magnets makes a big difference in the performance of the device.

Make sure that the poles of the interacting magnets can be as close to each other without touching if the two magnets are operating in different assemblies.



Jay Lunke 1-9-2023

The sketch above shows how two magnets torque interaction with each other. It shows that the interaction is the strongest the closer the poles of the permanent magnets are to each other. This is important for some of my motor configurations as will be discussed later on in this book.

The next drawing shows the interaction of two magnets acting like a ball when the two magnets are close to each other.

Like poles repel each other and opposite poles attract each other. In fact, if two opposite pole magnets are allowed to touch each other, then those two magnets function as one magnet. This is not limited to permanent magnets but one or more of the magnets can be electromagnets when the electromagnets are activated. In fact, the three-layer electromechanical movement speaks about creating a functional magnet when an electromagnet is touching one or more permanent magnets to function as a hybrid magnet. To be able to reconfigure electromechanical devices into and out of hybrid magnets, has an unlimited application in design work.

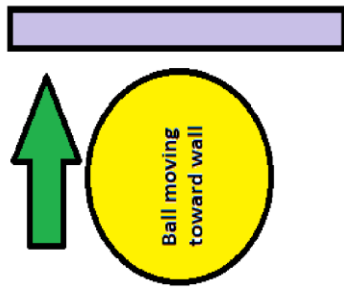
In the sketch, opposite poles are like a ball moving toward a wall.

Opposite poles touching is like a ball that is compressed into the wall. The energy in both systems is stored to their maximum potential. It is like a battery being fully charged.

The ball moving away from the wall represents two magnets repelling each other.

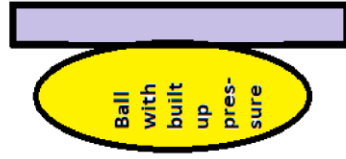
This is how many people see permanent magnets as the balls. Their reasoning is that as balls are bouncing around, they eventually lose their power, it is losses like friction that will stop the ball from bouncing around. For these people, Permanent magnets could never achieve over unity status in a motor or generating devices. For most of today's motor designs this is true. But I will show you new technologies and designs that take advantage of the power in permanent magnets. I will show you that when using my new technologies, they are not restricted to the ball level of movement shown in the drawing making a robust functional system.

It is too easy for people to accept the teachings that all free energy devices are invalid without even looking at the technologies of these devices. The valid free energy or over unity devices are usually using a secondary input power source in addition to the primary power source in order to validate the first two laws of thermodynamics for the over unit design.



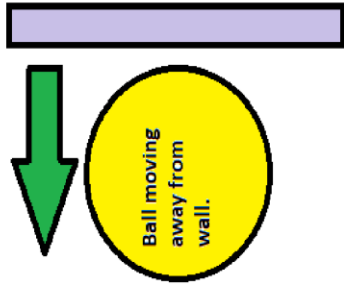
Ball moving
toward wall

Attraction of Magnets
Moving toward each other



Ball with
built up
pressure

Magnets with Built up
Energy



Ball moving
away from
wall.

Repulsion of magnets
Moving away from each other



The following two sketches show some of the interactions of magnets with each other. Motors normally operate with more than one magnet in the device. Most motors have two main parts. There is a rotor and a stator. The rotor is the part that rotates. The stator is the stationary part that interacts with the magnets in the rotor assembly to cause torque between two assemblies that cause rotor rotation.

In the conventional motor, the magnet poles need to change in order to keep the rotor rotating. This is usually done by making either the rotor, stator or both into electromagnets. The electromagnets then change their polarity at the proper time in order to keep torque between the rotor and stator assembly. This keeps the rotation active for the full travel of the rotor assembly.

The first sketch shows the attraction and repulsion to a pair of magnets. One of the magnets would require to be an electromagnet in order to produce a motor assembly.

In order to utilize a direct approach of magnets for a piston motor device would require some kind of a cam shaft in the design. Any cam shaft reduces the torque being transferred into the rotation of the shaft. This is just one of many factors that reduces the efficiency of motor assemblies in the common motors today.

Other designs have losses due to angular positions of the magnets that allow the rotation of the rotor assembly.

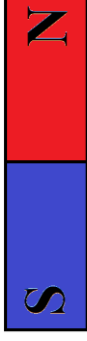
I have alternative designs that reduce the losses caused by using the inefficiencies like the cam shaft or rotation around a shaft. But you will see that there are many areas of inefficiencies that my new technologies and design approaches will improve upon conventional motors like motor power drive circuits to operate them.

I will be working through several of these improvements combined together to develop a system that has more output power than the main electrical power input needed to operate them. In theory, I do use multiple techniques that reduce the system's input power in order to achieve this goal. Multiple input power sources where I do not have to pay for those additional power sources.

The second sketch shows a different orientation between the rotor and stator magnets that can be used in a motor movement. We need to be open minded in this because there are some applications that require a different orientation to function properly. Motor applications need to keep the full system in mind in the design. Keep this in mind in your design work.

Permanent Magnet Interaction With Each Other

Different Poles Attract Each Other



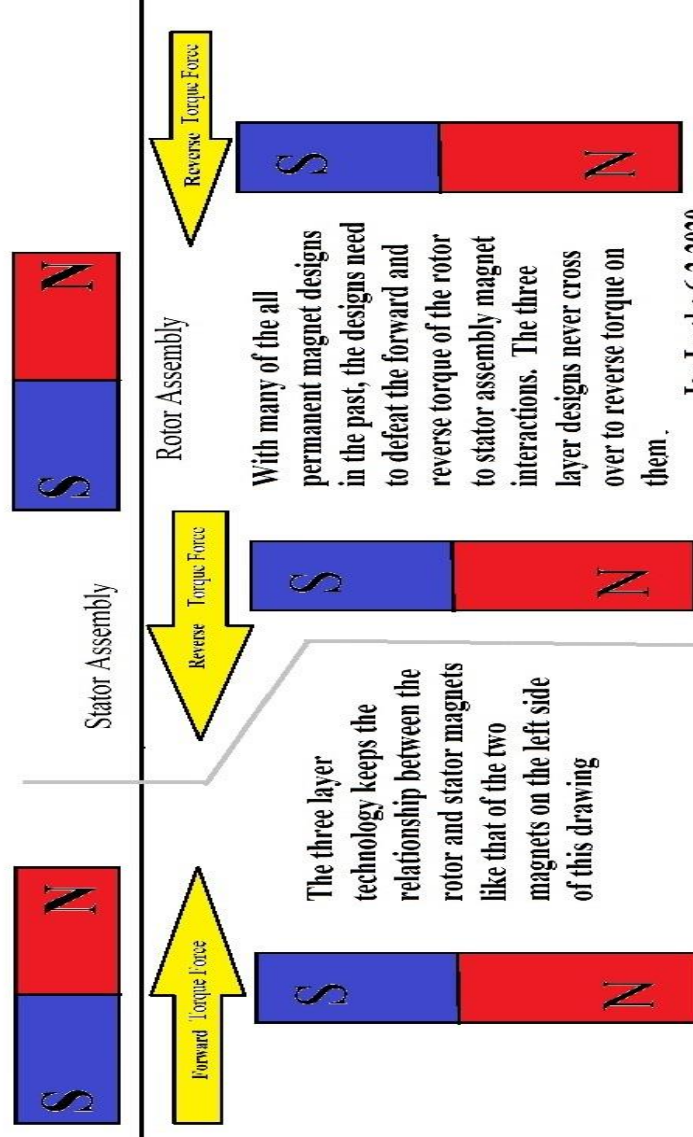
Same Poles Repel Each Other



Permanent Magnet Interaction With Each Other

Same Poles Repel Each Other

Diffenet Poles Attract Each Other

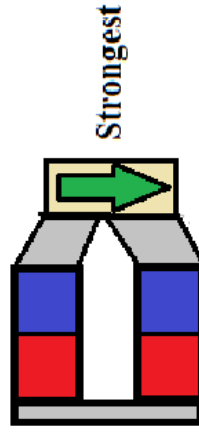
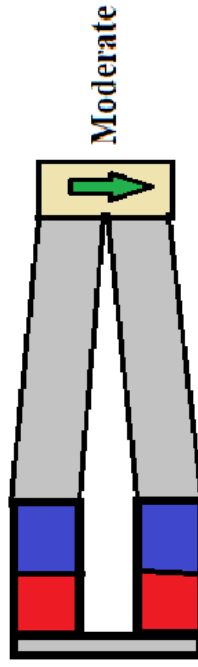
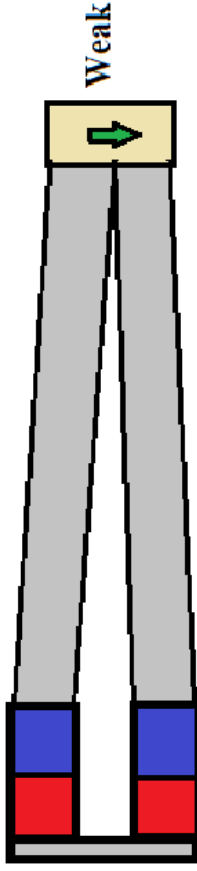
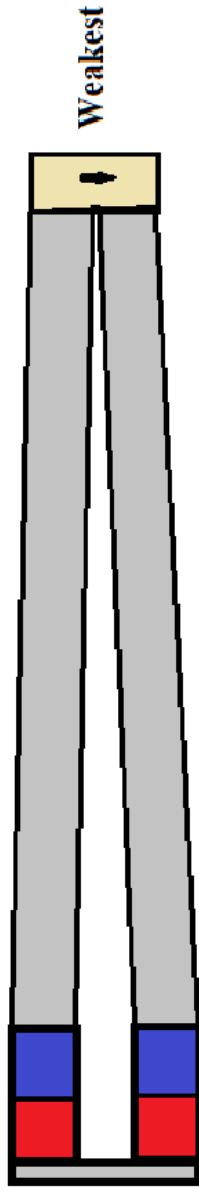


With many of the all permanent magnet designs in the past, the designs need to defeat the forward and reverse torque of the rotor to stator assembly magnet interactions. The three layer designs never cross over to reverse torque on them.

The three layer technology keeps the relationship between the rotor and stator magnets like that of the two magnets on the left side of this drawing

Jay Lunke 6-2-2020

Flux pathing from permanent magnets through metal pathing



Magnetic flux does not flow through magnetic conduit or metal bars and rods like electrical energy does. From testing I have done, the longer you want to move flux through a metal path, the more likely you will be able to do it if there is a shorter route it can take. This drawing shows my observations from the work I have done. Notice the size of the green arrows that represent the flow left at the end of the flux pathing as the path gets farther away from the magnet.

Jay Lunke 1-19-22

The drawing above was something I experienced when working with core materials in motors. I thought that core materials controlled the flux pathing like wire conduits control electrical energy in wiring. For a very short and restricted distances this is true. But that quickly changes as the core material gets farther away from the permanent magnets. This is something I wish I had known many years ago, because it caused me to waste my time on some of my early prototypes.

Now this is not to say, stay away from core materials as much as you can, because you will see that core materials used in motor designs are either the best or one of the best ways to achieve over unity in a free energy motor design.

The characteristics in core materials used in some other people's motor designs are the key to their motor designs. I always thought that permanent magnets were the key to achieving free energy motors by themselves, but these other people claim that they have proved in their designs that core materials can also do the trick to get to that level of performance.

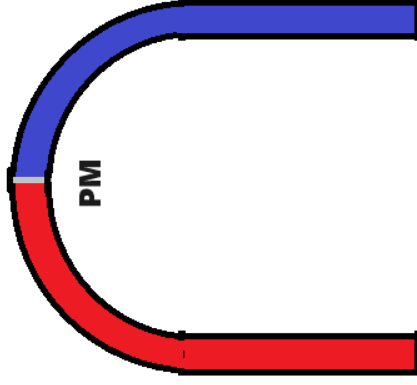
There are so many performance characteristics in different core materials that a whole book could be written on them alone. A lot more flux will flow through a coil that has a core in it. The toroid core does even more than the linear shaped coil. This is something

more people need to spend more time studying the performance of different core materials. Do your own homework on core materials and design consideration of what materials that you should be using in your devices. This can make or break the device design.

The following Sketch shows how the core material can complete a circular path for the flux when using a horseshoe magnet. This configuration is very efficient in containing the flux into the system of the design. This means more power to the system. Now if you use an electromagnet in place of the permanent magnet, you have an equivalent circuit with most of the advantages of the permanent magnet circuit. This is a great design configuration because with the electromagnet, you can turn on and off the torque in the system.

With the power turned on, the system acts like a toroid coil. Since the flux is self-contained in the system, the applications are endless for motor design work. Some of my best design work incorporates this as one of the features I use to achieve over unity in the motor system. At least in theory!!!!

Flux switching in Permanent Magnets:



The biggest thing the horseshoe magnet and core bar show is that the bar will pull itself into the magnet by the torque that is occurring between the two pieces.

If an electromagnet was in the circuit in place of the permanent magnet with the power on, then the electromagnet will pull the core bar into itself like the permanent magnet did. Now turn off the power and the core bar now has no attraction to the electromagnet. While a magnetic force flows across the core bar a magnetic field is induced into the bar material. If the core bar was replaced with a permanent magnet, then there would be attraction between the two pieces even when the power to the electromagnet is turned off. So I will take advantage of the core materials in motor designs that I have never done before.

Electromagnets:

I use the term electromagnet as a coil wrapped around core material. The core material can be metal, air or other materials that support magnetic fields. Now there are many shapes and sizes of electromagnets. I will speak to the two electromagnet types that I use in my designs.

Solenoid

This would be a straight piece of core material with a coil of wire wrapped around it. The cores I use can take on different shapes in the different designs that I have. In many of my old designs, the coils are wrapped around a non-magnetic core to simulate an air coil.

The following two drawings explains a little bit about cores and how they can be used in electromechanical devices. Core materials provide a better or easier path for flux to move through. This is true for magnetic flux from either permanent magnets or electromagnets.

The core material will change the normal flux flow from a magnetic device and route more of the flux through itself rather than the adjacent path next to it. The core material

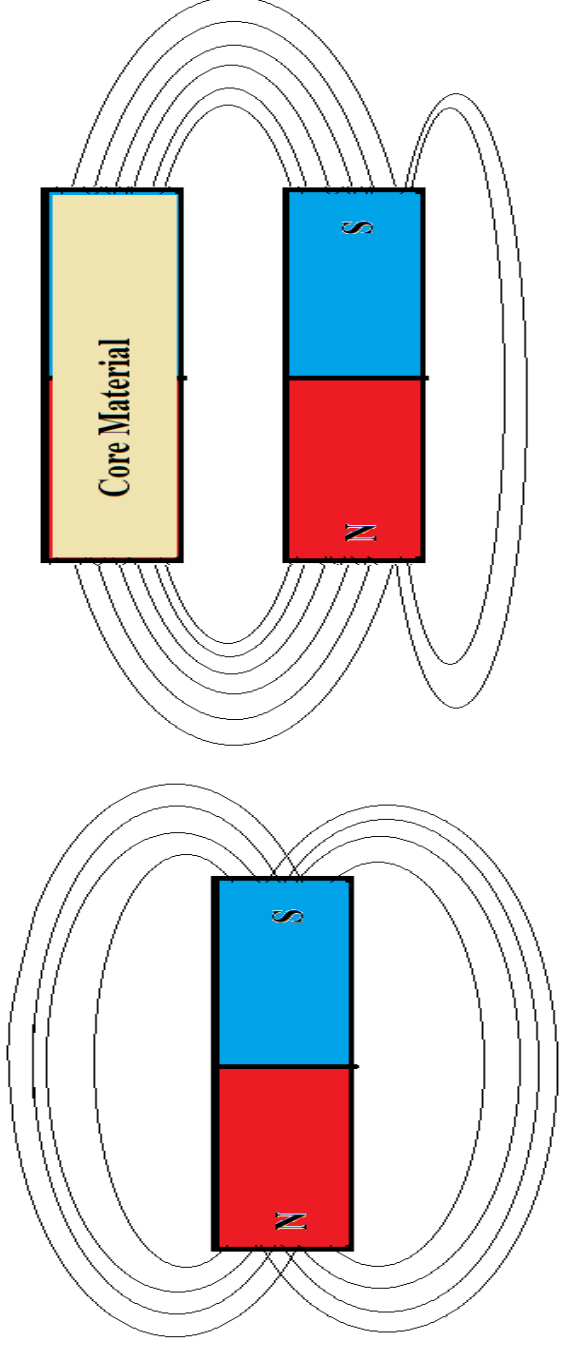
can also move more flux through itself before saturating itself like an air core. This means you can have a stronger magnetic force when properly using core material in your devices.

The second drawing shows wire wrapped around core material. This is the most common usage of core material in electromagnetic devices. Core material will produce more flux in a coil that in turn produces more torque in the device.

More torque means more work that can be performed in the device.

Later on in this book, I will be describing the great improvements in torque using new technologies in motor designs.

Core Material makes a big difference with the magnetic field

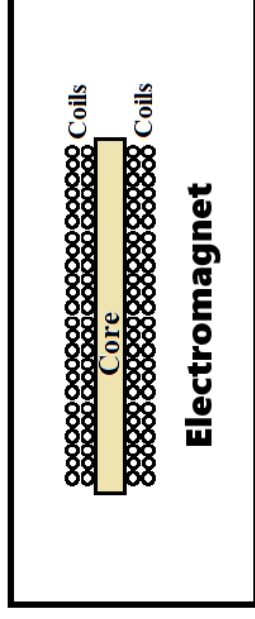
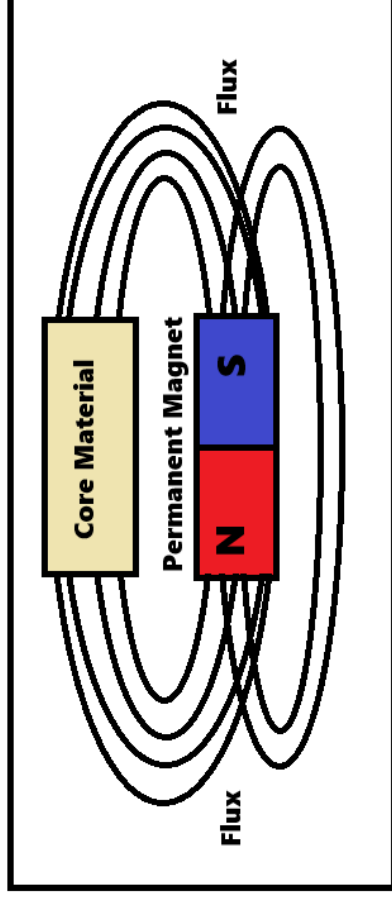


There are different materials that support the magnetic field better than others. Many metals provide a better path than the air path. With all of the different metals, each one has its own set of parameters that needs to be evaluated for the correct metal to use for the application. For most of my designs, I am looking for a core material that can support the largest magnetic force without going into saturation. At the same time I want the least residual magnetic field in the metal when the magnetic field is removed.

Jay Lunke 1=9=2023

Permanent Magnet and Core Material

Jay Lunke 9-3-2023



There are many materials that will create a better path for flux to flow through than moving through the air. We often call them core material. When a core material is placed close to a permanent magnet, more of the flux will flow through that core material than the air.

An electromagnet often is a core material wrapped wire electrical wire. As a changing magnetic flux passes through the core material, an electrical current can be collected through those wires.

If an electrical current is passed through the wire, then the coil acts like a magnet and it will have both north and south poles. The advantage of the electromagnet is that the power can be turned on and off that turns the magnetic properties on and off. Permanent magnets and electromagnets work hand and hand in many electromechanical devices.

Toroid Coils

The normal toroid coil has a round core in the shape of a donut with wire wrapped around the core material. I have created a functional toroid coil. Some of them look more like a transformer in shape but there is only one input coil of wire wrapped over part of the core material with no secondary or output coil. So, it does not function like a transformer. The closest thing my coils act like in my latest designs, is a toroid coil.

The inductance of a toroid coil is a lot greater than the solenoid coil for the same length of wire. This fact means there are performance differences between the two types of coils. If you were designing to get a specific inductance of a coil, the toroid core would require less wire to achieve that. This would be less of a cost for the wire of the device. This is only one of many advantages to use toroid coils over solenoid coils whenever you can in motor designs.

I do not wrap wire around the full circumference of my toroid coils. Another difference in the way I use the functional toroid coil is to break up the core into pieces in the area that does not have wire wrapped around it. I will get into details of how I use these pieces to achieve torque amplification later on in this book.

I have not seen other designs that use multiple sections of a single functional toroid coil the way I do. Some of these pieces are in the stator and some are in the rotor. It is this arrangement that produces torque between the stator and rotor assembly that can occur in several places in the motor from the same electrical energy applied to the functional toroid coil. You really do not want to miss out on this new technology.

After I write about the Three Layer Electromechanical Movement Technology, I will be showing you more about the functional toroid coil designs using a torque amplification design in conjunction with the Three Layer Electromechanical Movement Technology in one great motor assembly.

Three Layer Electromechanical Movement Technology:

I wrote a book called “A free gift that may be over unity or free energy to the world.” This book goes into great detail on the new “Three Layer Electromechanical Movement Technology” and how it works. So, I will only summarize this technology in this book.

The basic function of this technology is that it changes the functional configuration of either the rotor or stator several times during the operation of the device. It does this by creating functional magnets as a function of the third layer of the technology. These functional magnets make changes to where the north and south poles are in the device. They are in different locations in the device. With the change in the magnetic poles in the stator, it will change torque relationships between the rotor and stator assembly. It changes the torque from reverse torque to forward torque in the motor. So, by the proper switching into and out of the functional magnet mode of the motor, you can end up with a motor that will always have forward torque on it.

You may say that all motors have forward torque on them through the full rotation of the rotor. Why is this an advantage to a motor design? The answer is that this new

technology only needs electrical power for 50% of the time in order to have forward torque on the motor all of the time. This is only the first advantage of this new technology.

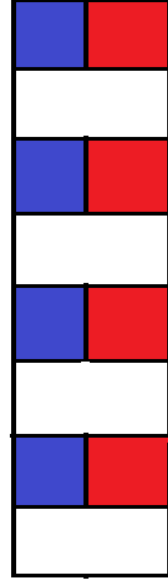
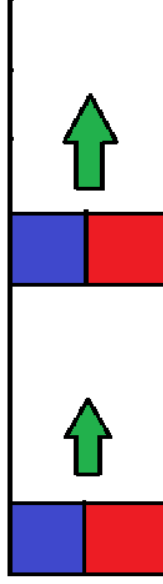
The third layer of the technology re-configures the function of the motor between two different operational functions over and over again during the operation of the motor. The main way to do this is to have three components involved in the reconfiguration. A middle device, usually an electromagnet, is placed between two permeant magnets to create a functional magnet. I will touch on some of these devices and applications of them later on in this book.

The technology uses four segments of travel, changing the functional configuration with each segment of travel. The next two drawings show how this new technology operates in a device with one stator and one rotor assembly.

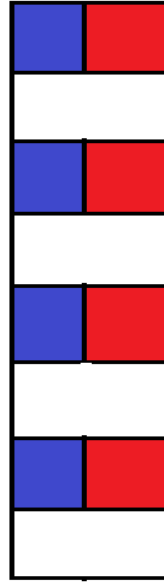
The magnetic devices between the rotor and stator assembly can be in series to series, parallel to parallel or series to parallel configurations.

All Permanent Magnet Movement

Start of Movement One

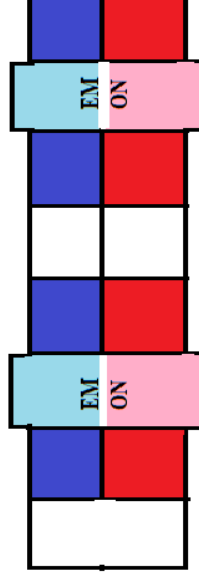


End of movement One

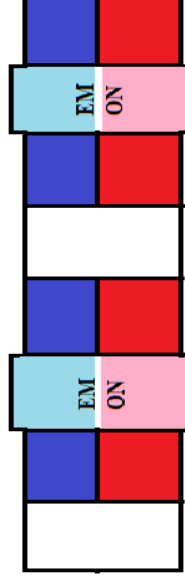


Functional Magnet Movement

Start of Movement Two

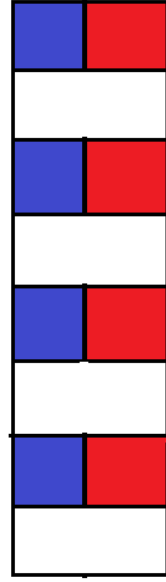
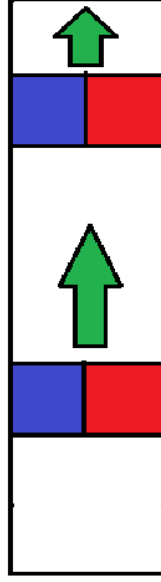


End of Movement Two

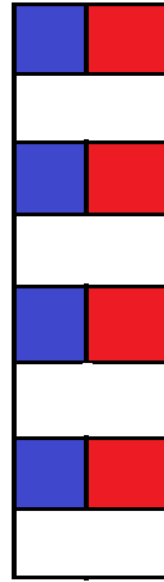
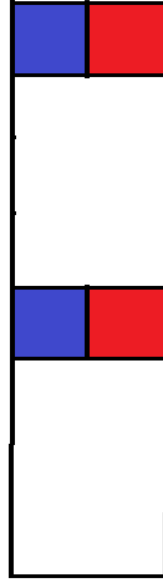


All Permanent Magnet Movement

Start of Movement Three

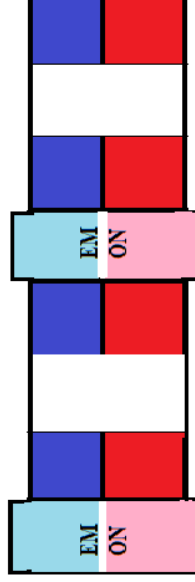
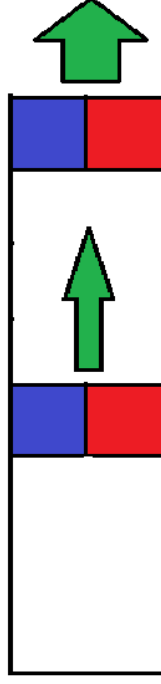


End of movement Three

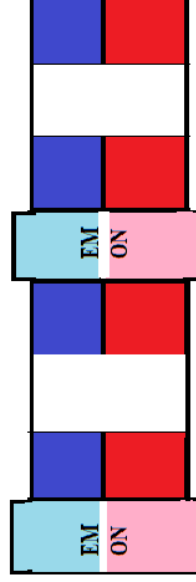
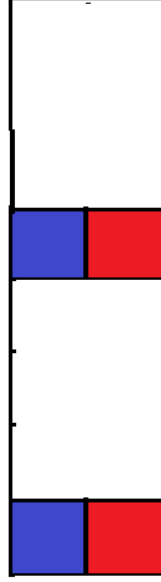


Functional Magnet Movement

Start of Movement Four



End of Movement Four



The two drawing we just looked at has a torque ratio of three permanent magnets to one electromagnet for the movement of four segments of travel. This is a big improvement over conventional and magnetic motors on the market today in theory.

Segments one and three do not require any electrical energy in order for the torque between the rotor and stator assemblies to move the rotor one segment of travel each.

In the second segment of travel, the first of the two electromagnets is powered on to form a functional magnet with the two adjacent permanent magnets to it.

The second electromagnet is turned off. This configuration causes the rotor to move one segment of travel.

The fourth segment of travel has the power of the first electromagnet off and the power of the second electromagnet turned on. This creates a different functional magnet with the two adjacent permanent magnets to it. This causes the rotor to move the last segment of travel.

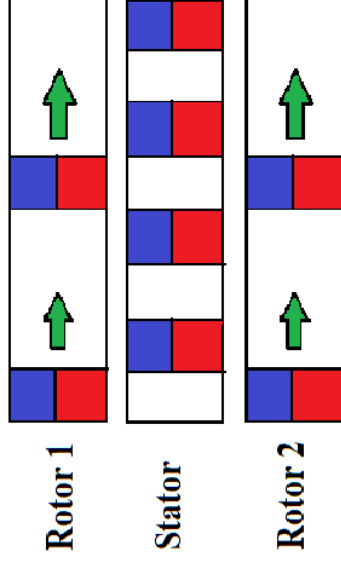
An electric motor with all electromagnets has a PM to EM torque ratio of zero to one. A magnetic motor used in cars today has a PM to EM torque ratio of one to one. So, this new technology having a PM to EM ratio of three to one requires a lot less electrical energy to operate it.

If you think three to one is great, how about a PM to EM torque ratio of five to one. The third sketch shows a device with two rotors and one stator assembly that accomplishes this.

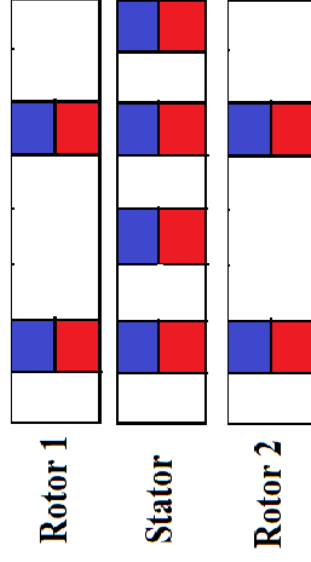
The sketch above shows you how to design a motor with a PM to EM torque ratio of five to one. This is six torque forces to move the rotors in the motor assembly with only paying for the electrical energy of one torque unit.

All Permanent Magnet Movement

Start of Movement

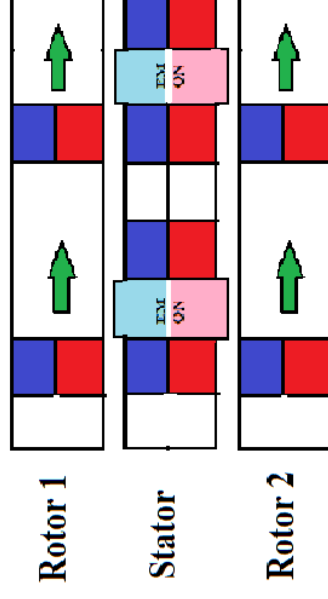


End of movement

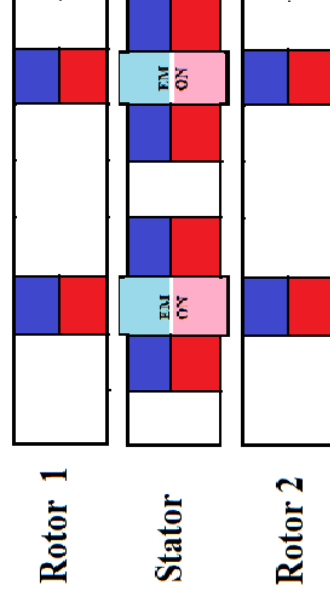


Functional Magnet Movement

Start of Movement



End of Movement



Past Three Layer Motor Work Done:

The following three drawings show a small example of what you will find in my book “A free gift that may be over unity or free energy to the world”.

The first sketch is the motor that has one stator and one rotor assembly. The third layer is the reconfiguration that occurs inside the stator assembly while it is in operation. These motors have electrical energy applied to the motor 50% of the time, but have forward torque in them for 100% of the time. This motor has a torque ratio of three to one of the PM to EMs in the motor.

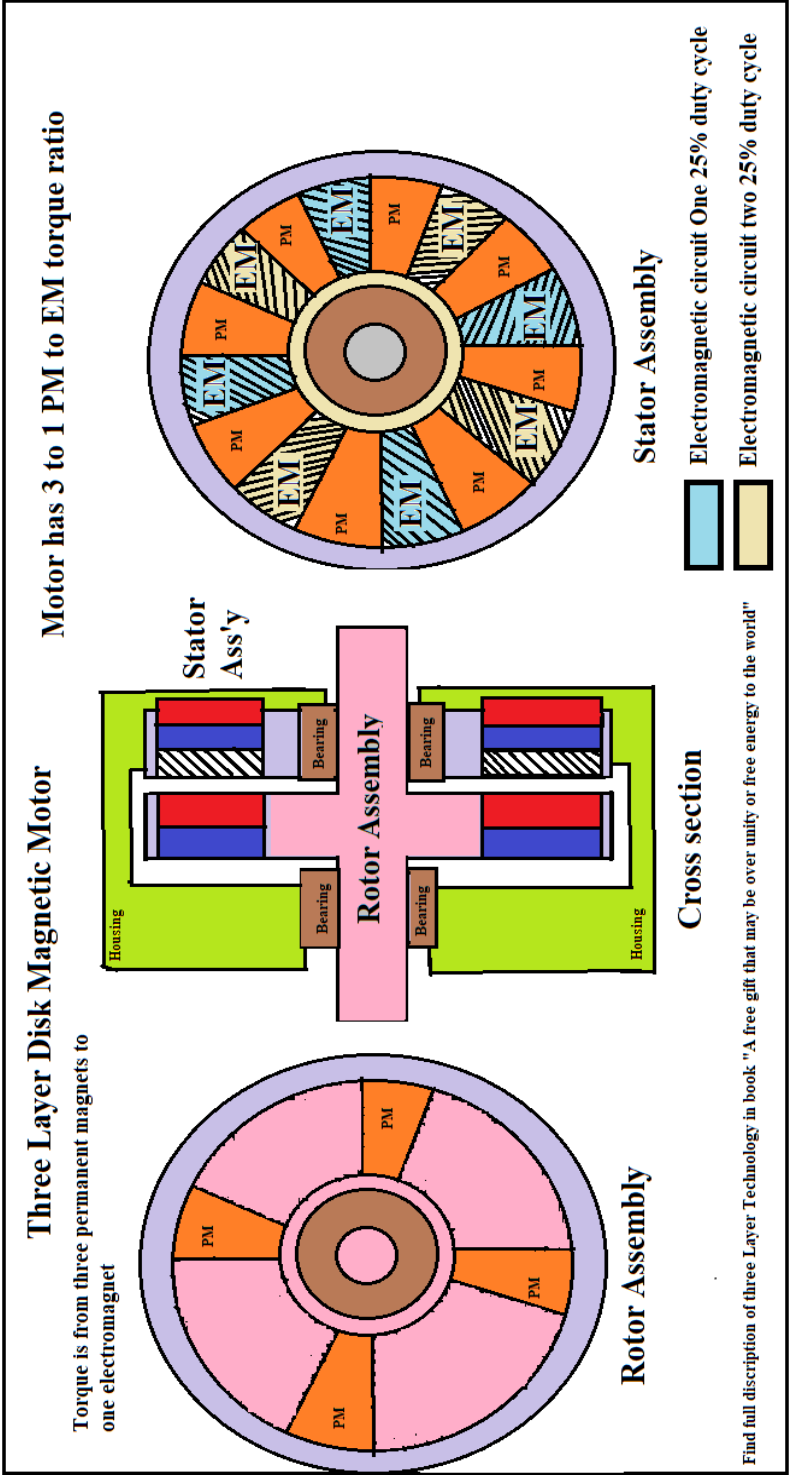
The second sketch is a motor having two rotors and one stator assembly. The additional rotor allows the torque from both sides of the electromagnets to contribute to the torque to operate the motor. The motor has a five to one, PM to EM ratio. This motor also operates with electrical energy applied 50% of the time to it. Forward torque is applied continually through the full rotation of the rotor in the motor.

The third drawing shows a completed prototype motor that is fully detailed in the book I have mentioned earlier in this book. I recommend building the prototype motor first, because it is designed to optimize different distances of the permanent and electromagnets to each other. It is designed to be easily assembled and disassembled. It is best to be able to get a test bed of information that can be graphed out for determinations of the actual design that will be built as the finished product.

In theory all of these should be over unity motors when built correctly and operating the motor with my modified tank circuit with steering diodes. Also, the drive coils might be able to be performed with a packet of optimal frequencies to them.

I will be discussing options for both of these circuits later on in this book.

3 to 1 Three Layer Motor:



The diagrams illustrate the design of a dual-rotor motor. The components are defined in the legend:

- Housing & Structure:** Yellow
- Permanent Magnets:** Pink
- EM Circuit 1 25% Duty Cycle:** Green
- EM Circuit 2 25% Duty Cycle:** Tan
- PM switching Signal strip:** Orange

Rotor One (Top View): A circular rotor with four pink permanent magnet segments (PM) and four orange PM switching signal strips. It also features four green EM Circuit 1 segments and four tan EM Circuit 2 segments.

Rotor Two (Top View): A circular rotor with four pink permanent magnet segments (PM) and four orange PM switching signal strips. It also features four green EM Circuit 1 segments and four tan EM Circuit 2 segments.

Stator (Cross Section): A cross-section view of the stator assembly, showing the housing, stator assembly, and dual rotor on shaft assembly. The stator assembly includes two stator assemblies and a dual rotor on shaft assembly.

Stator (Side View): A side view of the stator assembly, showing the housing, stator assembly, and dual rotor on shaft assembly. The stator assembly includes two stator assemblies and a dual rotor on shaft assembly.

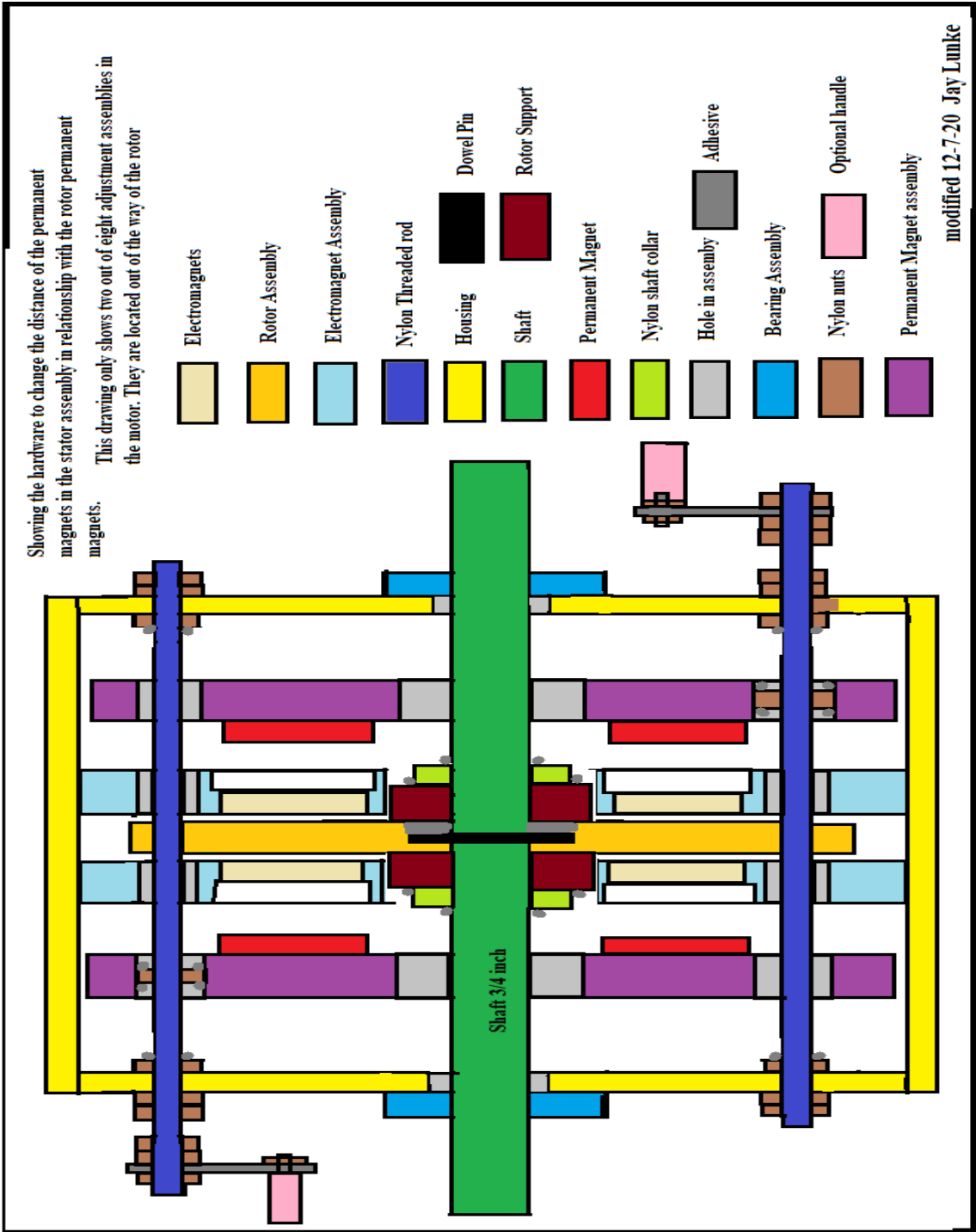
Legend:

- Housing & Structure:** Yellow
- Permanent Magnets:** Pink
- EM Circuit 1 25% Duty Cycle:** Green
- EM Circuit 2 25% Duty Cycle:** Tan
- PM switching Signal strip:** Orange

Other Labels: Rotor one, Rotor two, Stator, Stator assembly, Dual rotor on shaft assembly, Shaft, PM, EM, Stator Side View.

Jay Lunke modified 12-7-20

5 to 1 Three Layer Motor Prototype



What PM to EM torque ratio does it take to achieve an over unity motor?

Even if this motor has not achieved free energy status, think of the range the electric cars will get using this new technology.

I am not the only person using two rotors with one stator assembly. There is a video of a boy (Danial) with his father operating their prototype motor with two rotors in it. The two rotor motors have a much better performance than motors operating with one rotor and one stator assembly. The major reason for this big improvement is that some motor designs only use one pole of the electromagnet for creating torque to turn the rotor in the motor. This is throwing away the potential torque from the other pole of the electromagnet that could have been used to rotate another rotor in the motor.

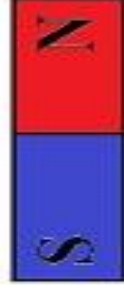
There are many motor designs that are wasting that potential power of the coils. People could look for those motor designs and improve them. This one change could double the efficiency of those motors alone.

The next sketch shows the series to parallel magnet configuration between the magnets in the rotor and stator using the new technology. This is one of the least efficient configurations in motor devices. This is because of the size relationship of the magnets in the drawing. Permanent magnets have the largest torque between magnets the closer the poles of those magnets are to each other. So, the length of the magnets, work better the shorter the magnets are. In some of the devices I have designed with this magnet orientation, the electromagnet is powered on to perform a functional magnet operation, the performance of this configuration was not to the strength of torque that I wanted it to be. Keep the magnets short using this orientation of the magnets.

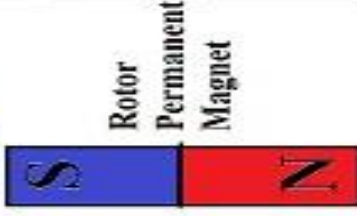
Re-configuration of Stator Using Switching Magnets

Conventional two layer configuration

Stator
Stationary
Permanent Magnet

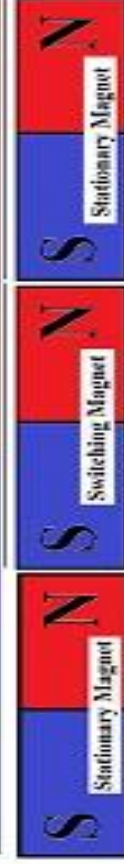


Rotor



Rotor
Permanent
Magnet

New three layer technology comes into affect when the stator is re-configured during the rotor movement

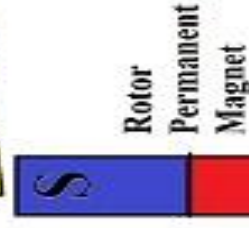


Next switching
position inactive



The switching magnet position is active 25% of the time.

There is other switching positions also operating 25% of the time. So when this switch is active, the next switch is inactive.



Rotor
Permanent
Magnet

The switching magnets shown in this drawing are coils with air cores. When the coil is turned off I use a rectangular box with nothing in it to represent that the permanent magnets do not recognize it as a magnetic device. When the power to the coil is turned on I use the symbol of a permanent magnet because the permanent magnets interact with it now.

Jay Lunke 5-29-2020

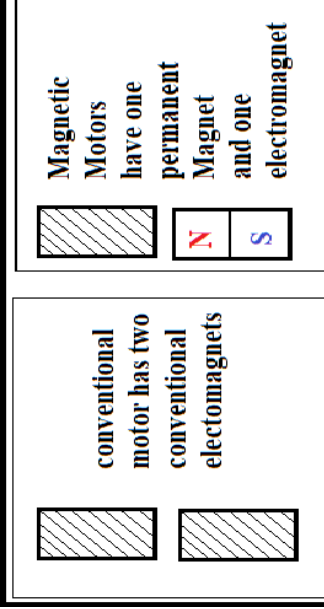


Figure 1

Three Layer Electromechanical Movement technology

Figure 1 and 2 show what I call two layer electromechanical movement. It is a rotor operating with a stator. Figure one shows the electric motors that are built with torque with all electromagnets. Figure 2 shows magnetic motors currently used in cars having one permanent magnet per one electromagnet. You have magnetic motors in electric cars over electric motors because you get better range from those motors.

Figure 3 shows the two of the four segments of travel in a Three Layer Electromechanical Movement technology. Both part 1 and part 2 move the same distance in a motor. Part 1 does not require any electricity in order for the magnets to align each other through attraction. In part 2, the electromagnet is activated as is shown in figure 4 in order to produce a functional magnet. When the power is supplied to the electromagnet the functional magnet is activated and when the power is turned of it gone as far as the magnetic fields go because the coil has an air core.

Part 1 and Part 2 repeat themselves with a different electromagnet circuit in parts 3 and 4 in order to complete the four segments of travel of the rotors moving through the stator assembly. When you add up the torques from each parts of Part 1 and Part 2, they add up to torque from 5 PMs to 1 EML.

This technology needs to be evaluated by someone because of the potential of torque power for the electrical power to operate it is great.

Modified 1-8-2023 by Jay Lunke

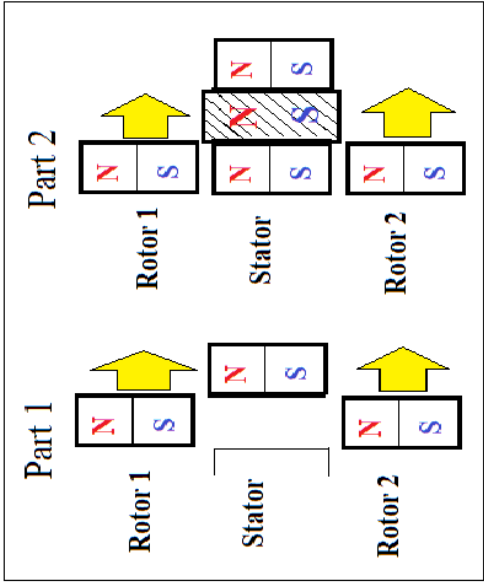


Figure 3

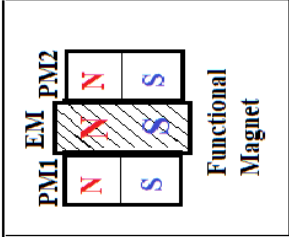
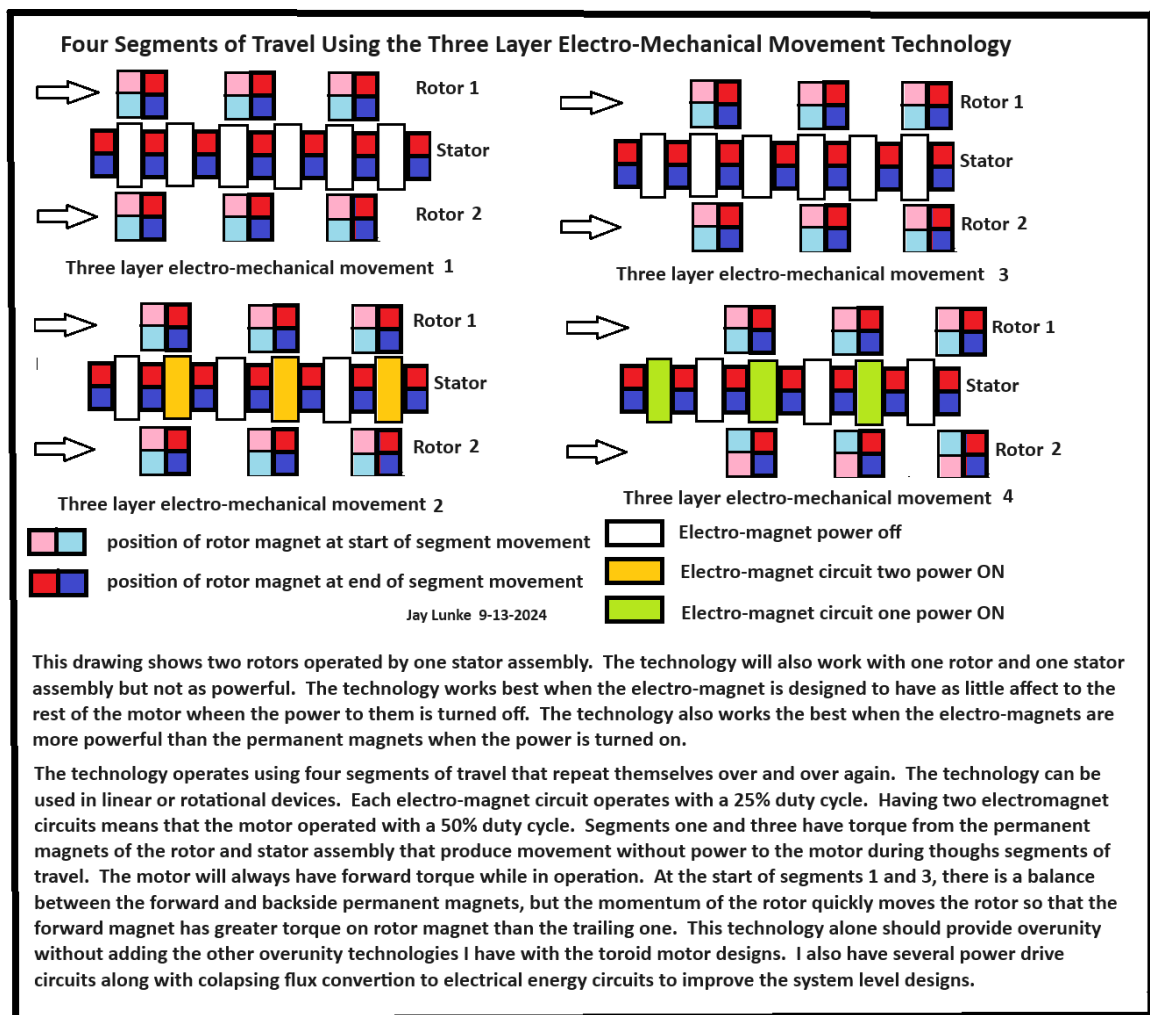


Figure 4

The above drawing is a comparison of magnetic motor configurations to my new motor technology. The new technology is not limited to motors. Linear applications are also a big part of this new technology.

The technology is so new, it needs another way to see it in the next drawing.

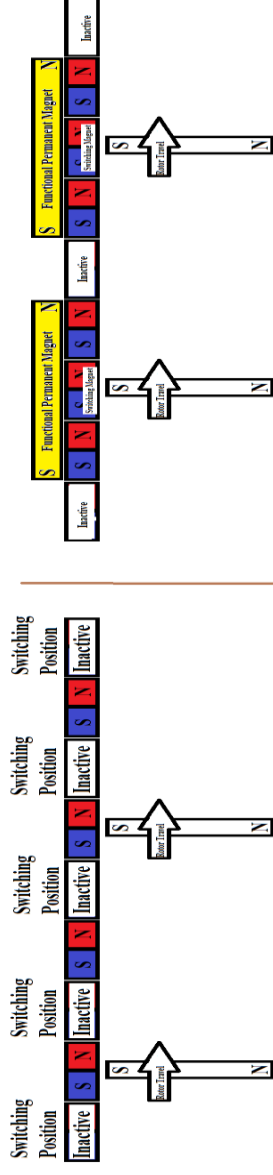


The two drawings below are another way of viewing the Three Layer Electromechanical Movement Technology.

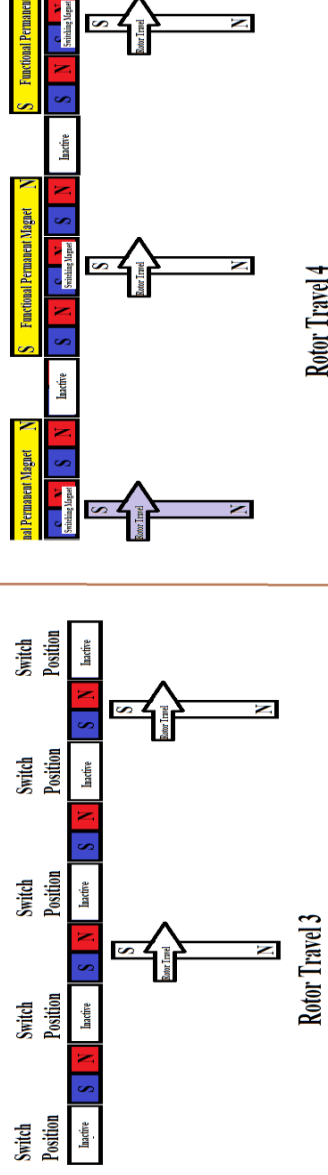
When using torque from designs that use more permanent magnets to electromagnets, it is hard for me to see that there would not be more torque produced using them when operating each motor with the same amount of input electrical energy. The torque from the permanent magnets would be the second source of input power to operate these new motors.

Three Layer Electro-mechanical Movement

Switching Magnet



Rotor Travel 1



Three Layer Electro-mechanical Movement Technology: This technology can be used in linear or rotary devices. The Stator is built with a stationary permanent magnet with a switching position. The switching position has four configurations that repeat themselves for four segments of travel. These changes in configuration create a traveling flux wave that the rotor permanent magnet rides on.

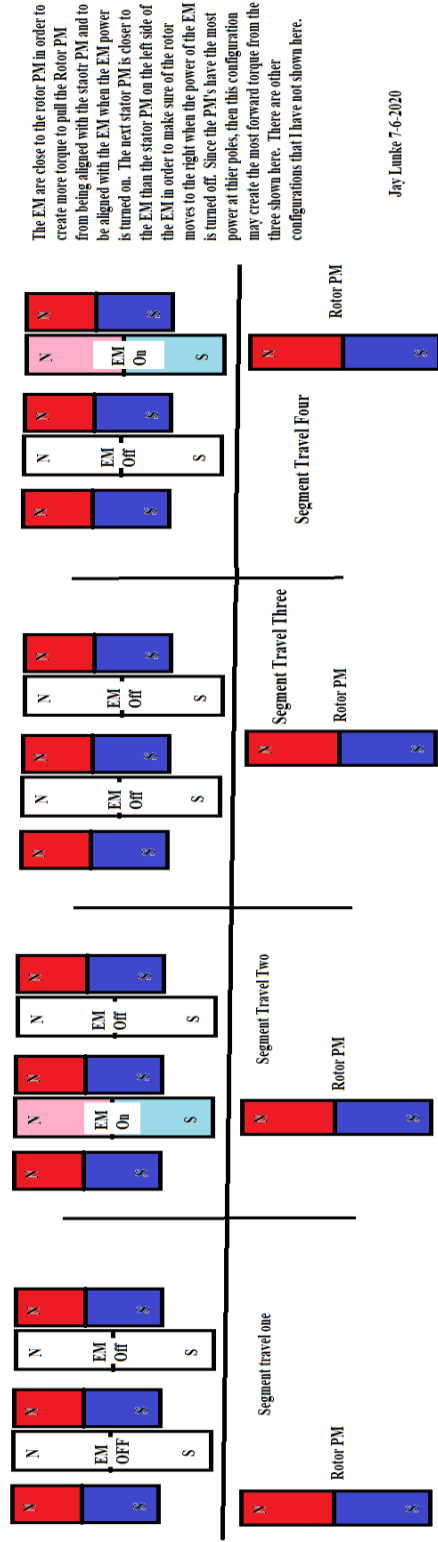
The switching position of this technology has several ways to be accomplished. With air core electro-magnets, the energization of the electro-magnet will make the magnet come alive with the two adjacent magnets to create a functional magnet that the rotor magnet interacts with. With the switching wheel, a permanent magnet is moved into position to create a functional permanent magnet with the two adjacent magnets. With using the three layer technology, the rotor will have forward torque at all times with the stator assembly

Trade offs for motor magnet configurations



This configuration has a lot of push and pull between the rotor PMs and the stator PMs. The width of the rotor magnets can be increased in width to increase the torque in the motor configuration. Electromagnets cannot have any effect on the permanent stator magnets when the power is off. So most metal cores can not be used in stator FMs when using the three layer technology.

Segment travel one



I want to find the best ways in lowering the input electrical energy to operate a strong motor. Once you get a strong operating motor with high torque for the amount of electrical energy to operate the motor, then you could have a system that the motor could operate an efficient generator that can produce more electrical energy than what is required to operate the motor with energy left over to operate other devices. With that being said, a lot of scams are doing just that. There are hidden energy sources in a lot of these systems. Do not fall victim to the many devices that are scams. Do your homework. I am not asking any money for my designs. Yes, I sell books, but I do not make a lot of money from them. I wish scams were not out there, just remember that not all of the free energy work going on are scams.

By building a system of a motor operating a generator and feeding the power back to the motor input and giving that system to a third-party evaluator to evaluate the system is almost as good as building an all-permanent motor.

These new technologies along with many others technologies working together in a system may be what is needed for me to design an over unity system. I am going to show you many new technologies that designed

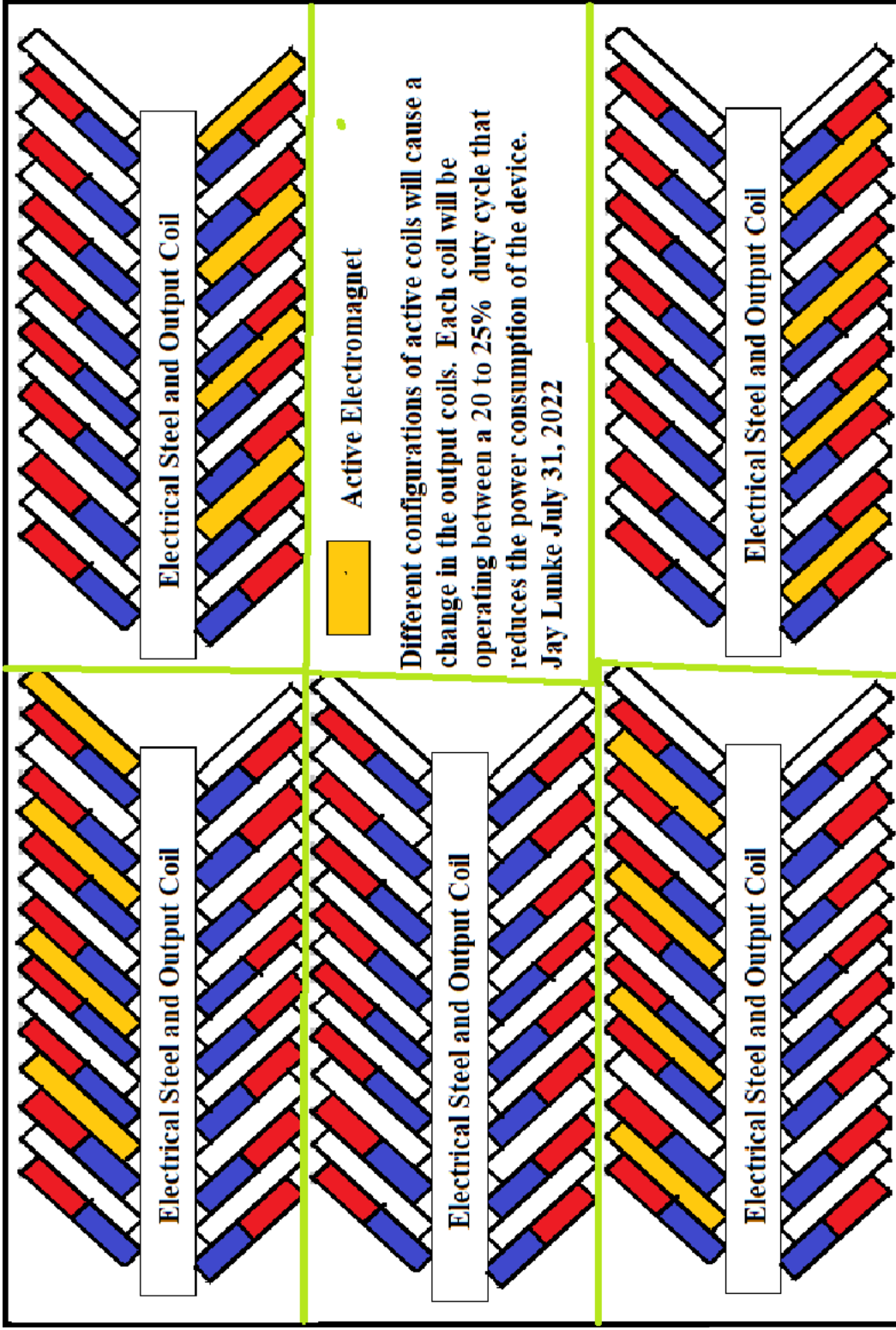
together in a power system should in theory provide an over unity system.

The next two drawings show optional operating configurations that electromagnets alternated with permanent magnets can be configured to in order to drive a linear motor assembly.

The proper configuration switching and timing will be a big challenge in building a successful motor design with this technology. I purposely left out the details of the rotary design assembly in these two drawings because I have other drawings coming up that will do a better job of it.

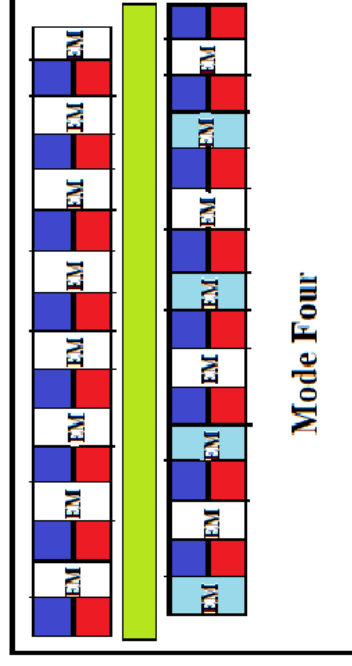
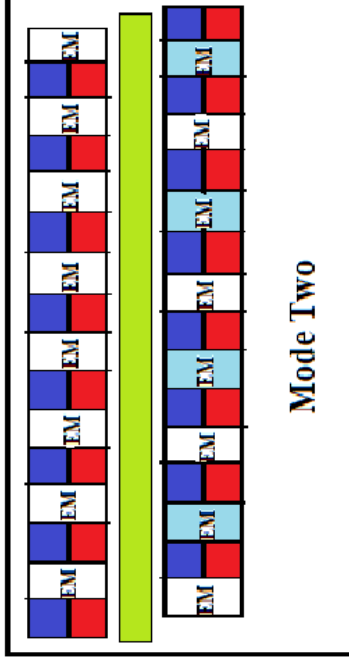
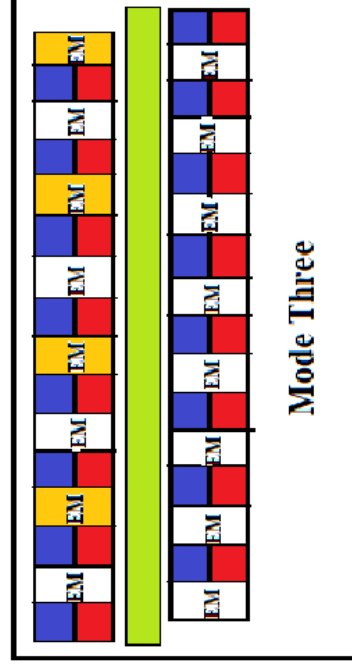
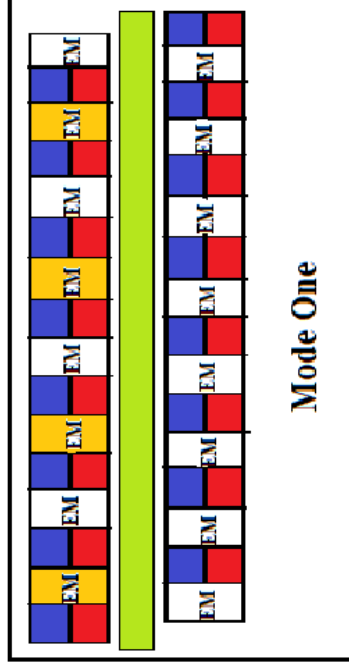
The three layer electromechanical movement are good for linear designs. The cost for many linear application would be large. So I do not expect that they will ever happen. It is good to have as many tools in your building box when you have unlimited applications that you are designing for.

These drawings show only the the different power configuration options that can be used. It is just the building block pieces for designing your own motors.



Traveling Magnetic Flux Using Hybrid Configuration

Jay Lunke 7-21-2022



- Permanent Magnet
- Output Coils
- Active EM Plus
- Active EM Minus

Can a configuration of a mixture of PMs and EMs be designed that could produce a traveling magnetic flux that could be used in a solid state generator that would require less electrical energy to produce enough gain in the output coils to simulate the Holcomb generator systems?

Core Material:

Air core

The reason I want to have an air core many times is to have the core to support the structure of the wires wrapped around it. At the same time, I do not want the rotor or the adjacent permanent magnets to have attraction to the core of the electromagnet when the power is turned off to the coil. You will see this a lot in my “Three Layer Electromechanical Technology” motor designs in some of my other books.

Iron core

Iron based cores are likely the most common core materials used in the past. They are reasonable priced. The cores are usually built of laminated layers to reduce eddy currents in the core. Eddy currents are a performance loss in any electromechanical device.

Nu-metal

This metal has become more and more used in electromechanical devices and needs to be evaluated in new designs. The best core materials will create the greatest magnetic characteristics without saturation of the material when the power is turned on and with the least magnetic characteristics when the power is turned off.

Crystalline

This is another material to evaluate for future electromechanical designs. The cost may be more, but if you have a product that produces free energy, you can ask for a little more money for it.

Generating Magnetic characteristics in core material:

Direct Induction through electromagnetic field

Coils, solenoids, toroid coils are an example of them. Toroid coils contain the magnetic flux and is the most efficient to use in designs. I am looking at hybrid functioning toroid designs that look different than the conventional toroid coil, but still have the advantages of the toroid coil.

Indirect Induction through magnetic field

Using permanent magnets

I use this method sometimes in my motors that use the three-layer electromechanical movement technology. It is when permanent magnets are used in close proximity to core material to induce the magnetic properties in the core material. I use it where the permanent magnet is in the stator and the core material is in the rotor assembly or I will use it where the permanent magnet is in the rotor and the core material is in the stator assembly. Also, I

have the permanent magnet adjacent to an electromagnet so that when the power is applied to the permanent magnet, the permanent magnet becomes a part of the larger functional magnet. What is great about this configuration is that permanent magnets will create movement with no electrical power to the device.

Using electromagnets

The best way I like to generate a magnet in the core material is in a hybrid functioning toroid coil. Most toroid coils are round and the core material is in a complete circle for the flux to flow in. Sometimes I create more of a rectangle shape so that the functional toroid coil has better manufacturability. Now the way I make it into a hybrid toroid coil is first to leave some of the core without wire wrapped around it. Then in that area, I will have some openings in that section of core material followed by some more core material followed by another space.

The rotor has four core piece that are placed in line with the openings of the toroid coil core opening. These core sections are separated into two groups. One group is part of the stator assembly and the other group is a part of the rotor assembly. The stator and rotor pieces are

alternating between each other. The first group is connected to the stator assembly by a strong non-metallic material to keep the sections in proper position of the motor design. The second group are a part of the rotor assembly. The openings between the stator core sections will create an opportunity for rotor core sections to move through these openings without physically touching each other.

Note: Some transformers have air gaps in them by design, so it is not uncommon in design work. Having the air gaps in the core allows movement of the rotor piece of core material, usually I call them a tab, to move through the stator assembly as close as possible to each other without physically touching each other. The closer they are, the more power there will be. This is great because we can control the forward movement to the rotor assembly through the stator assembly.

The way movement occurs is as follows. There are two states for the core material. The first state is that the core material has little to no magnetic properties in it because it is not being induced into it by an outside source. This is when the coil power is off. Without induced magnetic fields in the core means there is an absence of torque between the different core sections in the motor. This

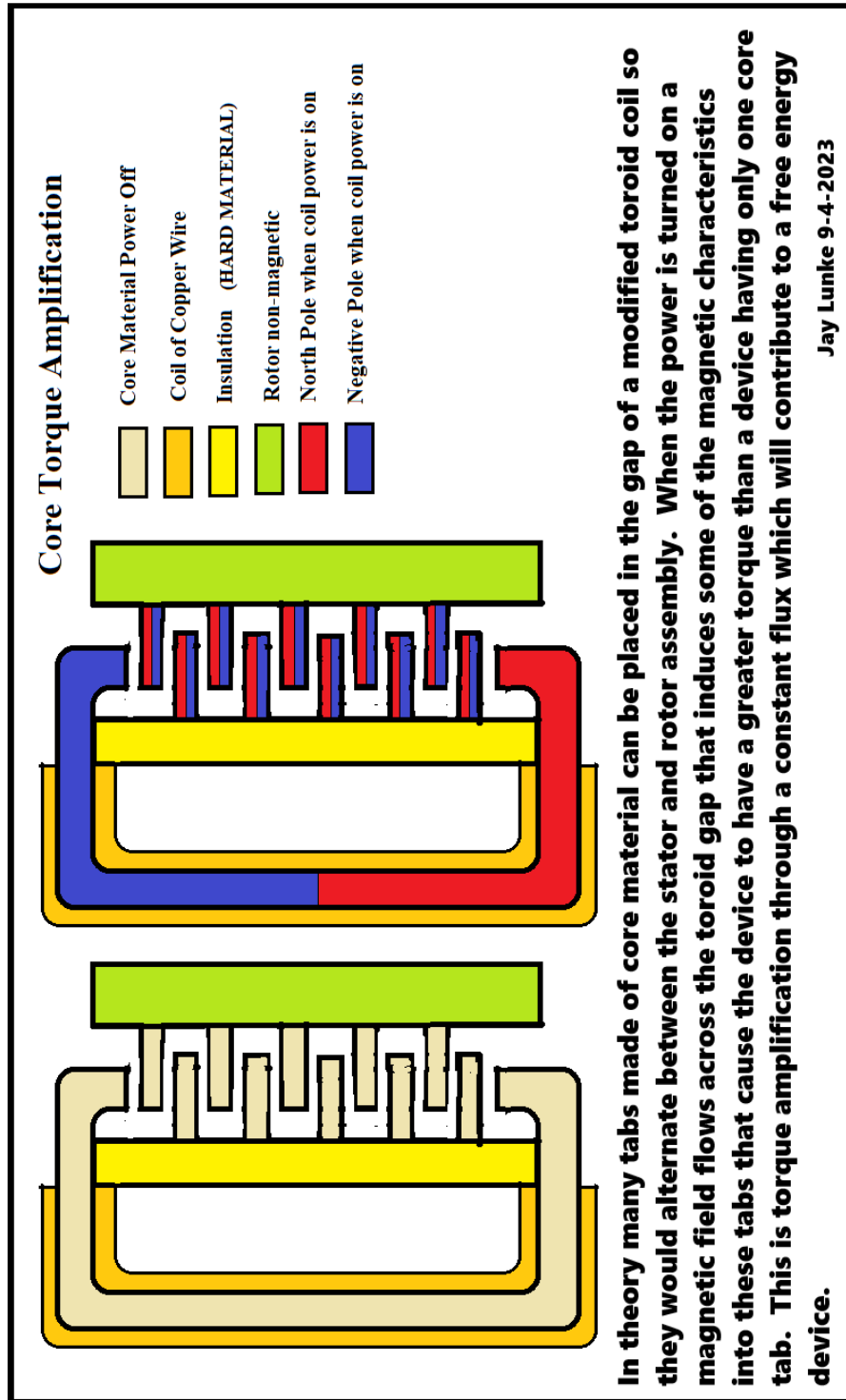
feature is just as important as having the ability of the core material to have the magnetic properties in it. The core material acts similar to an electromagnet. No power no EMF. The second state in the core material is to have magnetic properties in it. It is easy to see how a core material wrapped in a coil of wire around it can have magnetic properties when the power is turned on. It is a little more challenging to see how a separate piece of core material in a rotor assembly can have magnetic properties.

One way to see how this can happen is to play with a horseshoe magnet and an iron bar. As you bring the iron bar closer and closer to the magnet, the torque of pull between the two parts together gets stronger. The iron bar becomes more and more like a magnet as it gets closer to the magnet. It is an induction of magnetic properties into the iron bar that occurs as it gets closer to the magnet. So now you functionally have two magnets occurring in this process. This same thing happens between the rotor core material as it comes closer to the toroid core material. The rotor core material becomes more and more induced into a magnet as it gets closer and closer to the toroid core. The shape of the rotor core piece makes a difference in how this piece generates the

torque between the stator and rotor core materials into alignment with each other.

Once the rotor core piece and the stator core are fully aligned with each other the magnetic power needs to be turned off in order for the rotor to be able to rotate in the motor assembly. Turning off the electrical power at the correct timing is important for the motor's efficiency. The non-magnetic time is just as important as the active power time for the magnetic field in the motor device configuration.

Multiple rotor pieces from the same toroid coil:



It is easy to have one rotor core piece slide through an opening in the stator toroid coil core material. We can expand on this. One way to see how this can happen is to change the rotor to a drum assembly with several tabs made of core material coming out from it. The stator could be wider than the rotor drum assembly and the core could be broken up into several pieces of core material that are designed to allow the tabs on the drum assembly to slide between the stator pieces without touching each other.

As the power is applied to the toroid coil, the core builds up the magnetic field in them. Even if the rotor tabs were not in the gaps of the stator pieces, the magnetic field goes across each air gap and through each stator core piece in the functional core assembly. So, each core section acts similar to a magnet with north and south poles in it as it is subjected to the toroid magnetic flux flowing across it.

Now when you add in rotor tabs made of core material, then some of the flux changes the tab to a weak magnet. This generates a torque between the rotor tab and the two adjacent stator core sections. This torque will pull the rotor tabs into alignment with the stator core sections. As more of the rotor tab comes into the gap between the

core pieces, the greater the magnetic force and torque occurs between them.

The torque between each rotor tab with adjacent stator core pieces will improve the torque in the motor up to a limit of the number of layers of rotor tabs from the rotor drum. At the same time in theory, the electrical energy applied to the toroid coil will not change that much in value. What this means is that there is a torque amplification with each additional core slot and core tab added to the toroid coil assembly to a limited value that needs to be tested.

Since this is theory, then some people need to build some prototypes and test them in order to verify this concept. A full prototype does not need to be built in order to prove or disprove the torque amplification of this technology. Even though I have tested this, different core materials will likely give different results. The more people that perform the testing and share their results, the better off all of us will be.

Toroid Coil Motors:

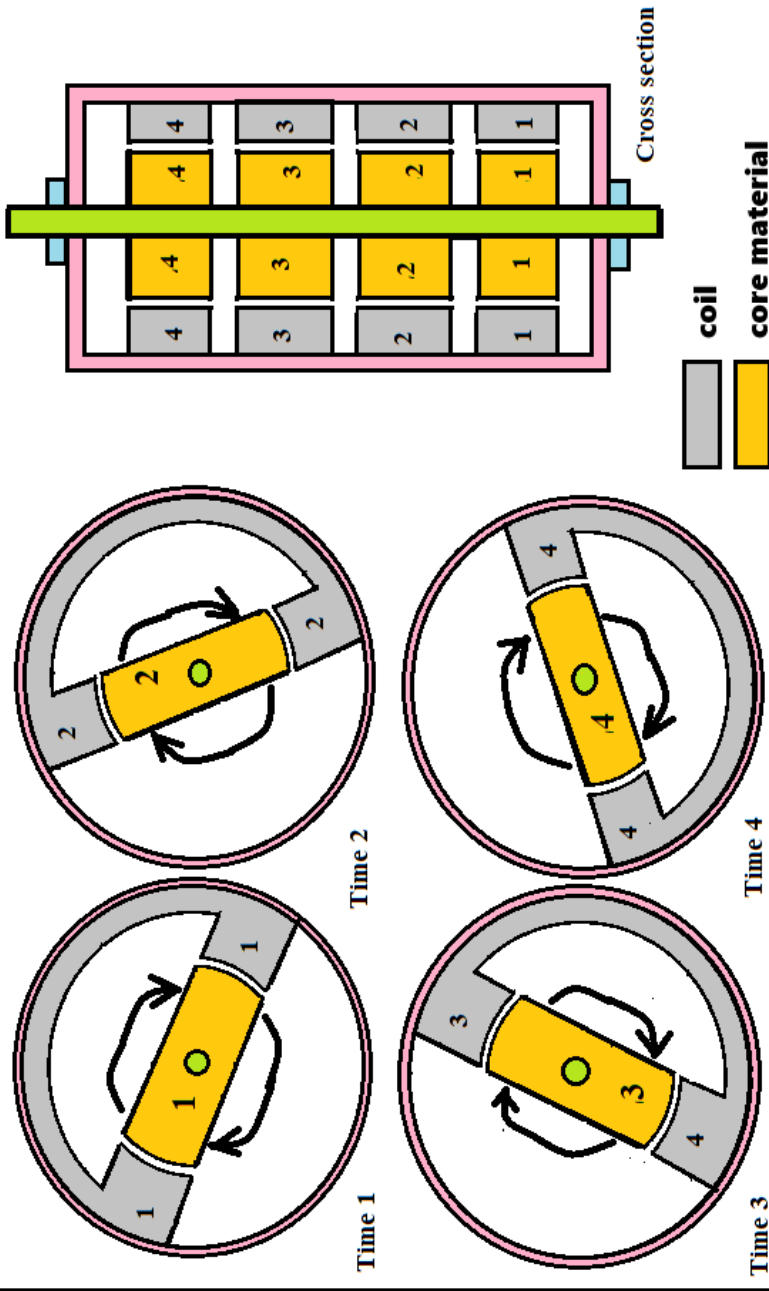
I have to admit that the first toroid motor design options I had were in error. I designed them as if the rotor core material acted more like a permanent magnet all the time. The thing I had to realize is that without a magnetic field influencing it, it has no magnetic properties at all. Then when it come into a magnetic field, the magnetic characteristics the core takes on changes as the external field around it changes. For example, if you bring a piece of core material close to a horseshoe magnet, it will pull itself to the pole closest to it and stay there. Now if you bring a bar magnet close to a horseshoe magnet, the south pole will be pulled to the north pole of the horseshoe magnet while the north pole of the bar magnet will be pulled to the south pole of the horseshoe magnet. This difference means you need a different motor design in order to produce forward movement of the rotor in the motor design. Now because of this we need to have pacific places of the rotor movement where the magnetic field is turned off and other places where the power is turned on when using core material in a motor design.

I removed three toroid motor designs from this book because I now do not believe they will operate as I had proposed them to operate.

So, the designs that are left in this book are designed to be pulled into alignment between the north and south poles of the toroid magnet when the power is turned on. This torque produces forward torque in the motor assembly. Then when the power is turned off, there is no torque between the rotor tab core material and the coil. This causes no torque in either direction of the motor. Other design methods are needed to keep rotation of the rotor in the stator for the full 360 degrees of rotation. I will be showing you some of these design options later in this book.

Toroid Drive Electric Motor

Jay Lunke 9-3-2023



This design is more for show of how a toroid motor can operate. Other drawings will show more manufacturable motors at lower cost with the same performance. Each of the four sections will alternate their power on cycle. The duty cycle is 25%.

Now the first series of toroid motor designs are very similar to some of the conventional motor designs on the market today, but there are differences. The rotor is core material that has a magnetic field crossing from one of the poles of the active stator electromagnet to the other pole of that magnet on the other side of the rotor core material and motor. Now when working with core material rotors, there needs to be at least two or more electromagnets in order to provide forward torque through the full 360 degrees of travel for the rotor assembly.

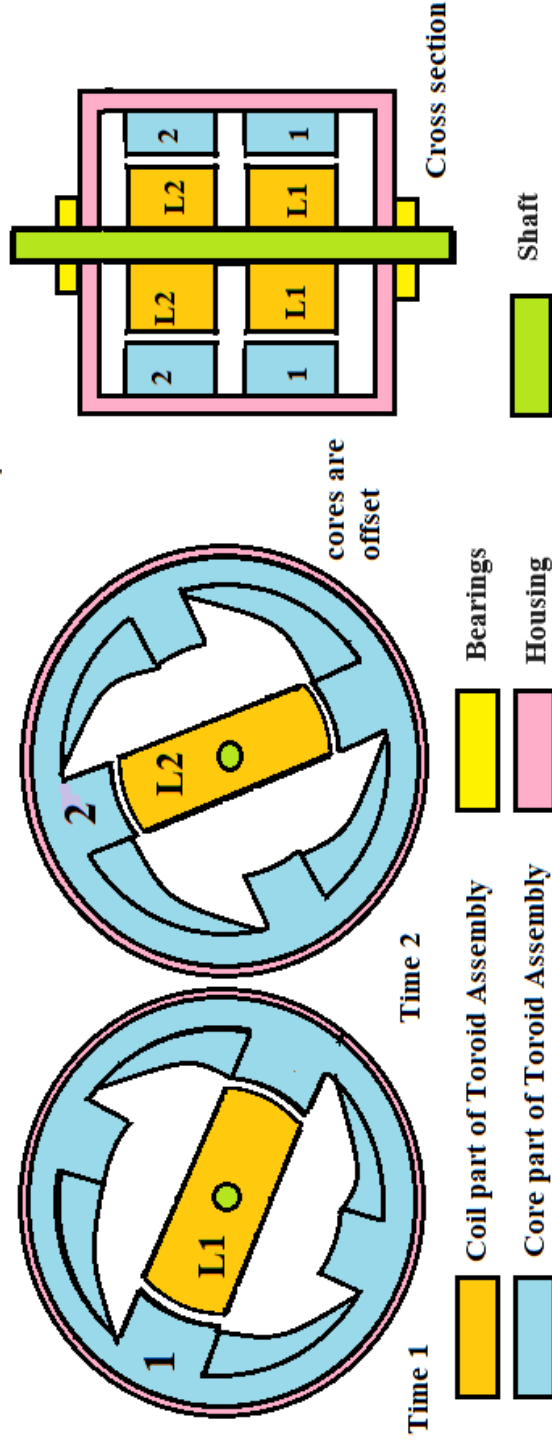
The drawing above shows four rotor sections in the drawing. This is to show an easier way to follow the rotor to stator interactions of how this technology works to keep forward torque between the rotor and stator assembly. As one of the coils becomes active, producing a magnetic field across the rotor, the rotor now acts like a permanent magnet with north and south poles that cause the rotor to align with the poles of the active electromagnet. Once the electromagnet has the power turned off, then the next electromagnet has its power turned on that now causes the rotor to come into alignment with that electromagnet.

The motor will alternate between the four electromagnets in order to rotate one full revolution. This means each individual electromagnet operates at a 25% duty cycle. This means the motor will operate cooler in temperature than other motors.

The following drawing shows the core material and electromagnets switched. The reason I am showing this is because it is always better to be open minded to look at motor designs different ways. Sometimes, you can find a better way to do something.

Toroid Drive Electric Motor Rev 2

Jay Lunke modified 4-17-2024



This Rev 2 Toroid Drive Electric Motor looks more and more like a conventional motor. The purpose of rev 2 is to reduce the number of parts of the motor at the same time provide the benefits of the rev 1 motor. The two sections alternate in the operation of the motor so that the rotor has forward torque on it through the full 360 degrees of rotation. When power is applied to one of the coils, it causes the alignment of the rotor coil with the closest tabs of the core material. When the power is turned off, no torque occurs between that coil and core material so it glides with no breaking.

The drawing above shows two rotor assemblies rather than four. The motor external function is about the same as the other motor, but it is in a smaller package. This means the first motor design will most likely never be built because this design is cheaper to build.

Now there are several people who have built toroid generators that do not have much of a change in power to rotate the generator shaft as the power load changes for the output of those generator. If this is true for the generator, then the question becomes, is it also true for the operation of a toroid motor.

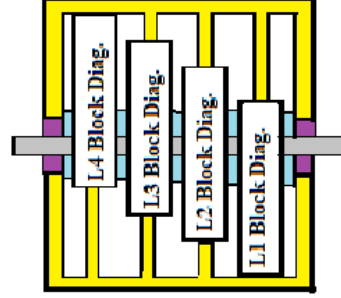
Will the input current to operate a toroid motor stay almost constant with a change in the torque the motor is driving? Even if it does not, there are other technologies in the new toroid motor designs that utilize several new technologies together in order to reduce the input power to drive the system in comparison to the power that the system outputs. Again, these systems use more than one input power source to operate the systems, but you only pay for one input power source.

The following drawing is another configuration for the toroid motor. Now in this design, the motor components are more squarish in shape. This should reduce the manufacturing cost of the motor.

Speaking of manufacturing costs, it costs more to manufacture toroid coils. Could it cost less to build the toroid in two sections. Then bond the two core sections together and solder the wires together to have a functional toroid coil?

Now the next drawing also shows the toroid with shorter sections of copper wire wrapped around the core material. Now after testing different cores with copper wires, I get better results when I cover the core with copper wire over as much of the length of the core material as I can. But there is no better way than to build as many alterations as possible on different sub-assemblies and test each of those for the best results.

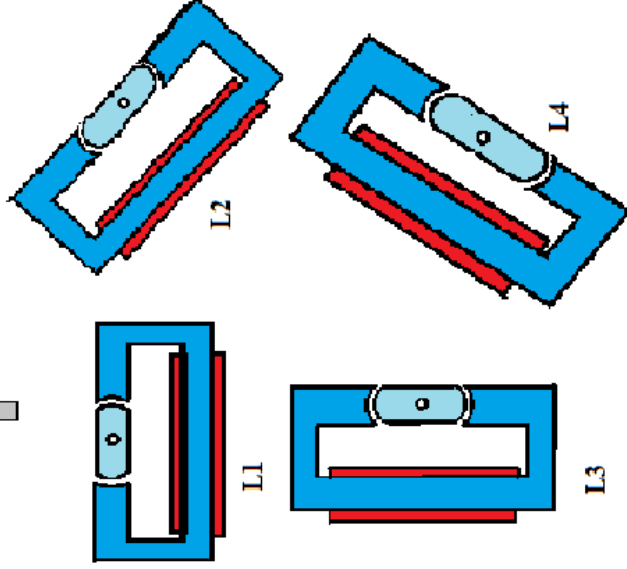
Shaft Toroid Electric Motor



This toroid motor operates by aligning the rotor on the shaft with the toroid coils. Only one toroid is powered at a time in order to have forward torque on the shaft at all times. You need to cycle power through the four toroids two times for 360 degrees of shaft rotation.

Advantages of this motor in theory

- 1.) No permanent magnets
- 2.) Toroids produce more torque than solenoid coils.
- 3.) No back torque in the motor.
- 4.) Easy to replace other motors.
- 5.) lower cost than disk toroid motor.
- 6.) Using Mu-metal for the core will produce more torque.
- 7.) Each coil operates at 25% duty cycle which reduces the heat in the motor

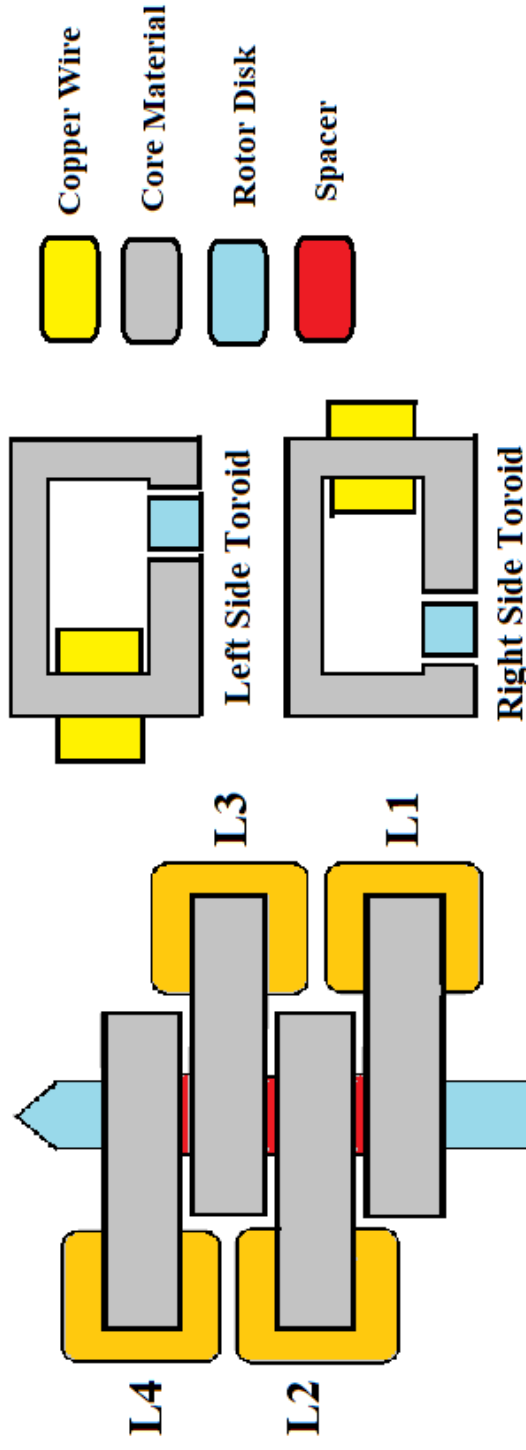


In the drawing below, I change the interaction of the rotor to the stator assembly. The change is to reduce the gaps that occur between the rotor and stator assembly during the rotation of the rotor within the stator assembly. In order to do this, I need to increase the number of toroid electromagnets in the route of the rotor within the stator assembly. This does add cost to the motor but it adds greater torque to the motor at the same time.

A noticeable change is that the rotor is moving sideways in the functional toroid assembly rather than a linear movement with it. The torque between a linear direction or a sideways direction is the same as long as the distance between the rotor and stator is the same for that movement. You can install more toroid coils into the stator when you are operating the motor with sideways movement in the motor assembly.

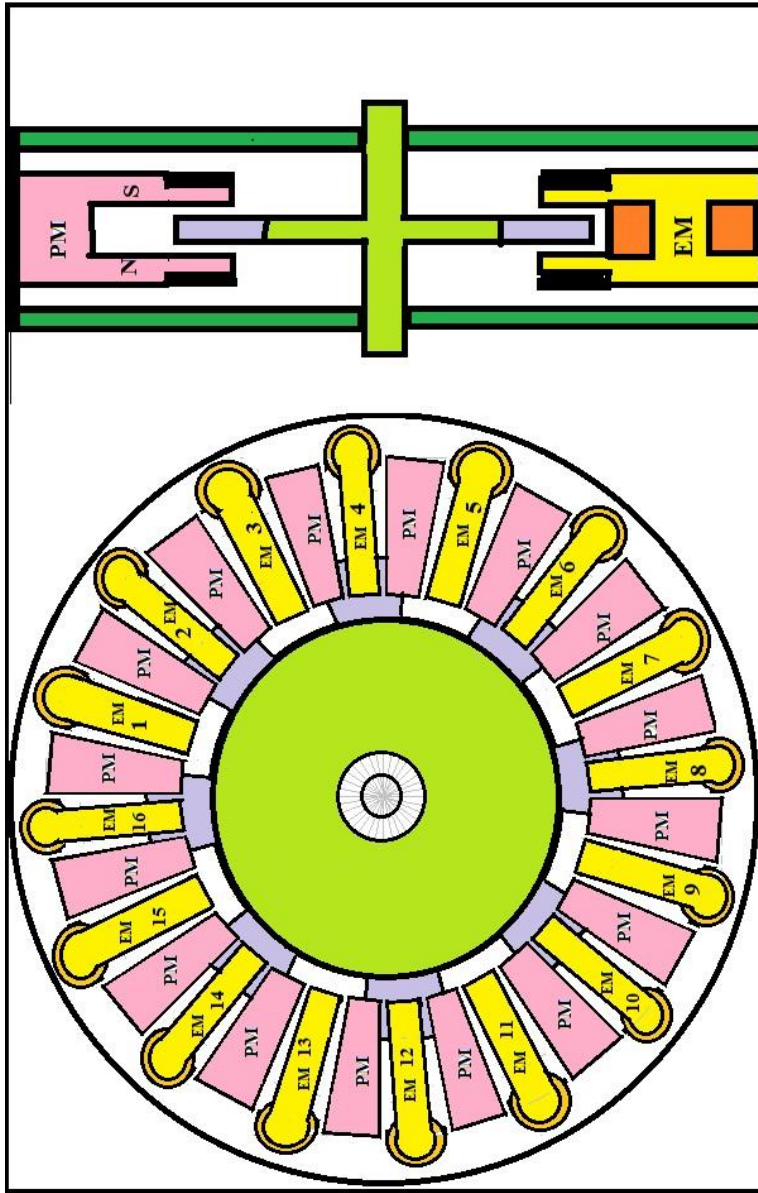
Single Rail or Rotor Toroid Electric Motor

Jay Lunke modified 4-17-2024



This drawing shows how the toroid motor configurations can be used for linear applications as well as rotary ones. Now this motor configuration could alternate the power between the even and odd coils, but the adjacent coils will play tug of war with the rotor disk core tab sections when the power is first turned on to the circuits. In order to avoid that tug of war, the electromagnets should be arranged in groups of three. The power would alternate in each group of three, one coil at a time. What this does is to have the power applied to the leading next coil at the same time the trailing coil does not have power on it. This means each coil will have a 33.3% duty cycle. Each coil when powered will have all of the torque in the forward position in the motor. This motor has all of the efficiencies and advantages of the toroid coil assemblies.

Three Layer Electromagnet Technology for Toroid Coils:



Jay Lunke 12-17-2022

Three Layer Toroid Motor

This toroid motor design uses the three layer electromechanical movement technology. There are four segments of configuration that repeat themselves over and over again. The EMs along with the rotor core material area's complete a toroid configuration. The EMs operate at most a 25% duty cycle each. The even EMs are powered during the second segment of rotor travel. The odd EMs are powered during the fourth segment of rotor travel. During the first and third segment of rotor travel, the power to all the EMs are turned off.

When the power is off to all EMs, the PMs create torque to move the rotor a little. When a EM is powered, it forms a functional larger magnet with the two adjacent PMs next to it in order to align the core material in the rotor with the middle of this functional magnet which is where the powered EM is.

The “Three Layer Electromechanical Movement” technology is different than the conventional electric motors that use what I call a two-layer electrical mechanical movement system. In a two-layer system, the stator has one mechanical configuration working with one mechanical configuration in the rotor assembly. Either or both the stator and rotor can have EMs that turn on or off to create the motor behavior.

I use one of two drive circuit configurations with my latest toroid motor designs. If the motor has adjacent magnets to the toroid coils, then I use the four-segment power cycle that I will be getting into more detail about later on in this book. If the toroid motor does not have adjacent permanent magnets with the toroid electromagnets, then I use the three-segment power cycle where I rotate powering the coils, one at a time. Each power drive circuit and motor assembly have its advantages and disadvantages.

With my new motor technology, the stator assembly changes the mechanical configuration by creating different functional magnets in the assembly. In fact, there are three different configurations that the stator changes into during the four segments of movement that define this motor technology.

There are four segments of travel developed during the reconfiguration of the stator assembly that keep repeating themselves over and over again in order to keep the motor running. Segments 1 and 3 create movement in the rotor without any electrical energy to the toroid electrical magnets in the motor assembly. It is like the attraction that brings a magnet to the refrigerator and it stays there. In segment 2 the power to the odd toroid electromagnets is turned on while the power to the even electromagnets is left off. What this does is it reconfigures the stator assembly into functional magnets. The functional magnets are comprised of the activated toroid electromagnet along with the two adjacent permanent magnets to it. What this does is to move the center of the north and south poles of the functional magnet. With this happening, the core material in the core tab moves to align itself with these new pole locations. After the alignment occurs, the power is turned off to all the electromagnets. The moment this occurs, the force of the two adjacent permanent magnets has equal attraction on the core material. Then the momentum of rotor movement will cause the permanent magnet to move to the right side to produce more and more attraction to the right-side magnet than the permanent magnet on the left side. The torque on the left side will be less and less with the movement of the tab in the rotor assembly. The movement continues until it gets aligned with the permanent magnet on the right side

of the core tab. It is at this time the even numbered electromagnets are turned on and a different set of functional magnets are created. These new functional magnets have a new location for north and south poles. This new location now causes the core tab to align with the new poles. Once the core tab aligns with the functional magnet then the power to all of the electromagnets is turned off again. Then the full four segments are repeated over and over again.

The drawing shows 16 electromagnets that each operate at 25% of the time in the motor. There are 32 segments of travel for the rotor to complete one full revolution in the motor assembly. This means that the electromagnets will be on, or fire, for $1/32$ of the time of one full rotor revolution. So, each coil will fire eight times for one revolution of the rotor. Let's say the motor is operating at 60 Hz, then the DC power pulses on time would be a 1920 Hz signal. This is great because this would be close to the optimal frequency for the motor. What this means is that the DC switching signal can fire the coil without requiring a lot of current. This would simplify the power driver circuit at the same time it would have a highly efficient motor operation. This speed would also be a good speed to operate an external generator.

The big difference in this toroid motor I have shown you so far is that it is adding a permanent magnet circuit between every electromagnet in the stator assembly. What this does is to make the motor function similar to the other Three Layer Electromechanical Technology motors I have developed in the past in the book I wrote “A free gift that may be over unity or free energy to the world”. This motor is even better than those motors because of the improved efficiencies and power that the functional toroid coils provide to the motor design. This does not include the torque amplification technology that is still coming in this book.

This motor design along with the improved power delivery technology along with the electrical recovery circuit from the collapsing magnetic field will produce an extremely highly efficient motor assembly that I would be surprised if it did not meet the over unity status. But wait for the torque amplification version of this motor assembly.

The toroid motor designs use tabs attached to hard insulation or non-magnetic materials. This is on purpose to keep the flux concentrated in the shape of the toroid core as the rotor and stator tabs are aligned with each other. In theory, these tabs attached to either the stator or rotor assembly will function as a functional toroid coil. This movement of the rotor through the stator assembly is

not prone to as many flux losses found in conventional motor designs.

This motor has forward torque through the full 360 degrees of rotation with each electromagnets having a power duty cycle of only 25% at most. It will likely be shorter than 25% in order to allow the built-up magnetic field in the core material to dissipate or be regenerated into an electrical charge to be used later on in the circuit. I have a modified tank circuit with steering diodes that could be used for that purpose.

I have designed several motors using the three-layer electromechanical movement technology, but most of them use straight coils. This new design uses toroid coils that maximize the generated magnetic field in the design. This means that this motor could be more powerful and efficient at the same time than those other three-layer electromechanical movement technology motors designs.

Because the torque is generated at the core material tabs of the rotor assembly, this motor may have a lot more torque than the conventional motor.

The motor rotor has 8 tabs, each having forward torque on them during rotation. This provides a lot of torque in the motor. Since there are eight rotor tabs, the rate of pulsing the toroid electromagnets is a lot faster than in most conventional motors. The DC switching signal

operate more efficiently with rates greater than 1 Kilohertz in this motor type.

I wrote a book called “A free gift that may be over unity or free energy to the world” that goes into great detail about the “Three Layer Electromechanical Movement” technology. It also has a lot of information about the “modified tank circuit with steering diodes” in it. There is also a lot more information about different motor designs.

Note: The shape and construction of the tabs on the rotor assembly are critical. The middle of the tab needs to have more attraction to the stator components than the leading and trailing edges. One way to do this is to taper the thickness of the leading and trailing ends like that of an ax. Another way is to reduce the amount of the tab that protrudes into the slots of the stator components at the leading and trailing edges. You could also do a combination of both. There are other ways to do this as well. The taper on the trailing edge may be removed.

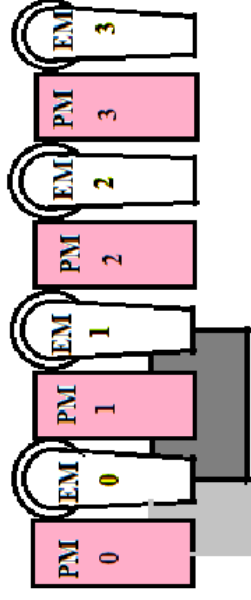
Three Layer Electromechanical Movement Toroid Electric Motor: Jay Lunke 1-10-2023



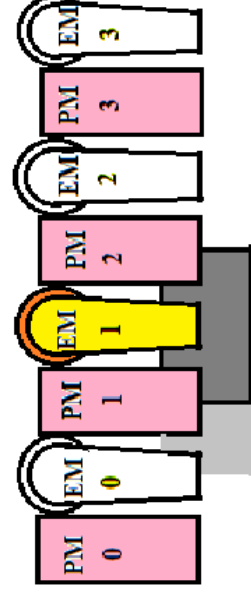
Ending Place of Rotor Core Material



Starting Place of Rotor Core Material

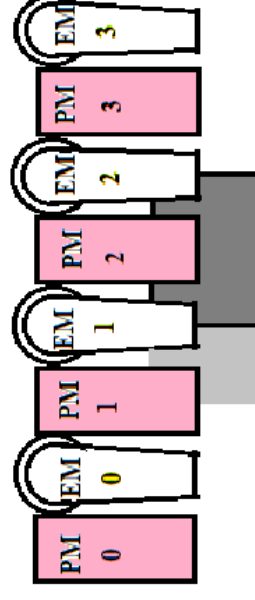


Segment 1: With no power in the system, the permanent magnet one pulls the core material along with a little energy from the rotating rotor moving to the right.

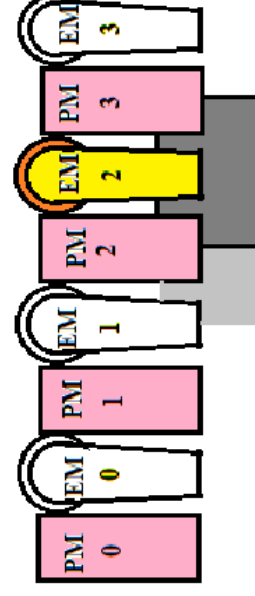


Segment 2: PM1, PM2 and EM1 form a functional PM with the power to EM1 turned on that causes the core material to move some more to the right.

* Shows only one core tab on these drawings: *



Segment 3: With no power in the system, the permanent magnet two pulls the core material along with a little energy from the rotating rotor moving to the right.

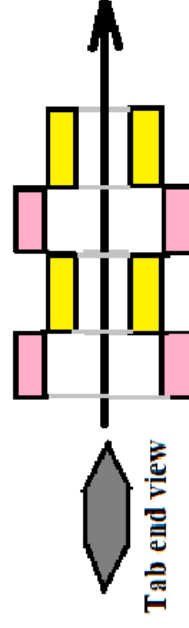
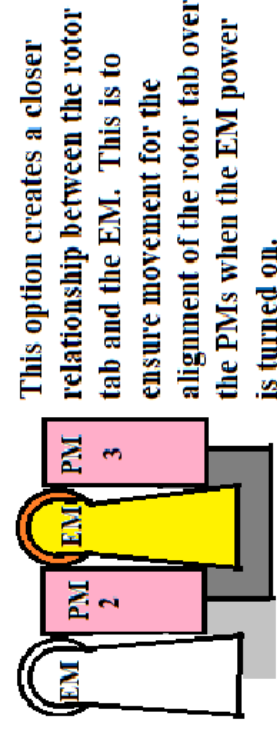
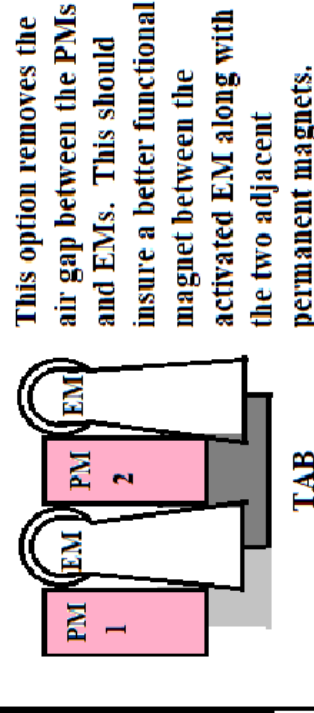
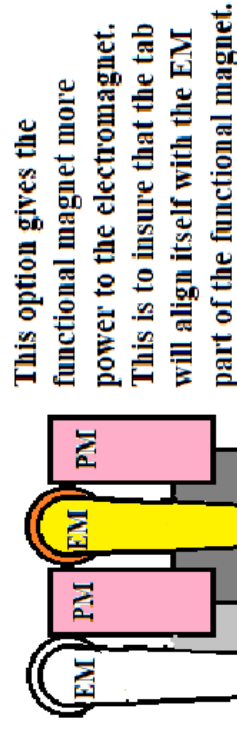
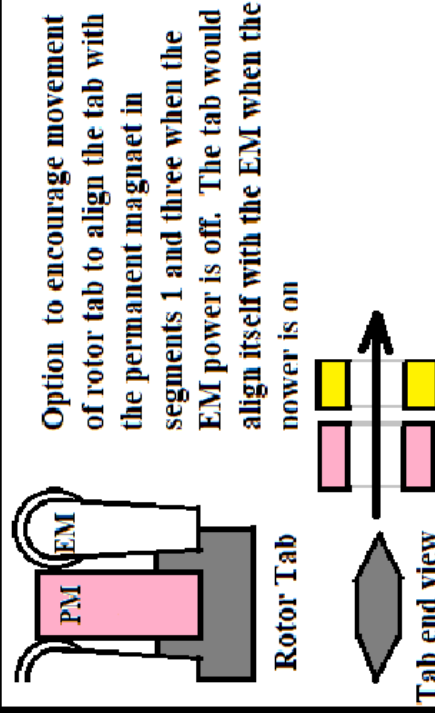


Segment 4: PM2, PM3 and EM2 form a functional PM that pulls the core material in the rotor assembly to the right.

Segments 1 - 4 keep repeating themselves.

Options for best rotor tab movement through 4 segment travel

Jay Lunke 1-10-2023



The Three Layer PM Toroid Drum Motor:

The drum motor is designed to produce more torque in the motor with little more input power to the motor. The theory is that the power to drive the core in the toroid coil to align the one rotor tab is about the same as when the toroid aligns more rotor cores like in the drum assembly.

The toroid core is broken up into several pieces. Half of the pieces are secured to the stator assembly while the other half are attached to the rotor assembly. When the toroid power is on, the rotor tabs all have torque on them that are being pulled in alignment with the stator core material. Even if the toroid needs a little more power to align the extra rotor tabs, the power per motor size should be increased.

Note: All of the efficiency improvements should be evaluated and tested with the PM Toroid motor designs. Remember everything in this book is theory.

In the following drawing, you can see that each toroid coil is powering four tabs on the rotor assembly. So, a motor

with 16 toroid coils in it, each coil moving 4 tabs through them, means that there are 64 tabs having torque on them. This is a lot of torque from the stator assembly torquing the rotor movement in the motor assembly for forward movement.

Note: I have now tested the stacking of rotor layers between layers of stator core tabs. The best performance I got on my testing was four rotor layers. The single layer of rotor tabs was 42% of the output of four-tab layers. This is not as great of a gain as I expected, but a better fixture with closer layers to the permanent magnets along with using a better core material could improve this gain. But any torque gain with the same input power means an amplification of torque which means an amplification in power of the motor assembly.

In the following figure, before the power is applied to the functional toroid coil, the adjacent permanent magnet assembly had the torque of holding the rotor tabs in alignment with the stator assembly. Then the power is applied to the functional toroid assembly that is in the desired direction of movement for the rotor assembly.

The functional toroid coil along with the two adjacent permanent magnet assemblies form a functional magnet that changes the location of the poles of the functional magnet. This change causes the drum tabs to rotate into alignment with the functional magnet where the middle of the functional magnet is, which is lining up with the electromagnet. Since the drum has four times more tabs in it than a single rotor layer motor I showed you, the torque produced and power gain in this motor is greater as well.

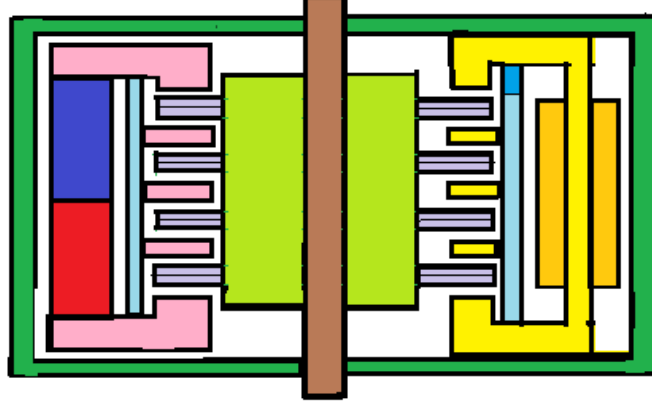
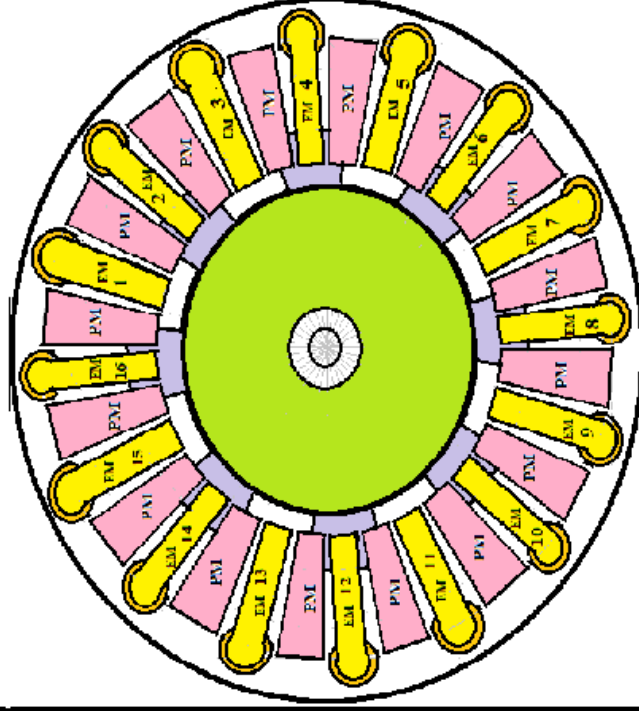
To have a torque amplification of over twice as much as a single layer of rotor assembly is a great improvement.

But this motor design has more opportunity of gain than that. When you add all of the possible power gains.

- 1.) Torque from power free permanent magnets.
- 2.) More torque from core material.
- 3.) Toroid design (high efficiency) (little change in current draw with changing load)
- 4.) Multiple rotor gaps. (228% power gain)
- 5.) Modified Tank Power Drive Circuit.

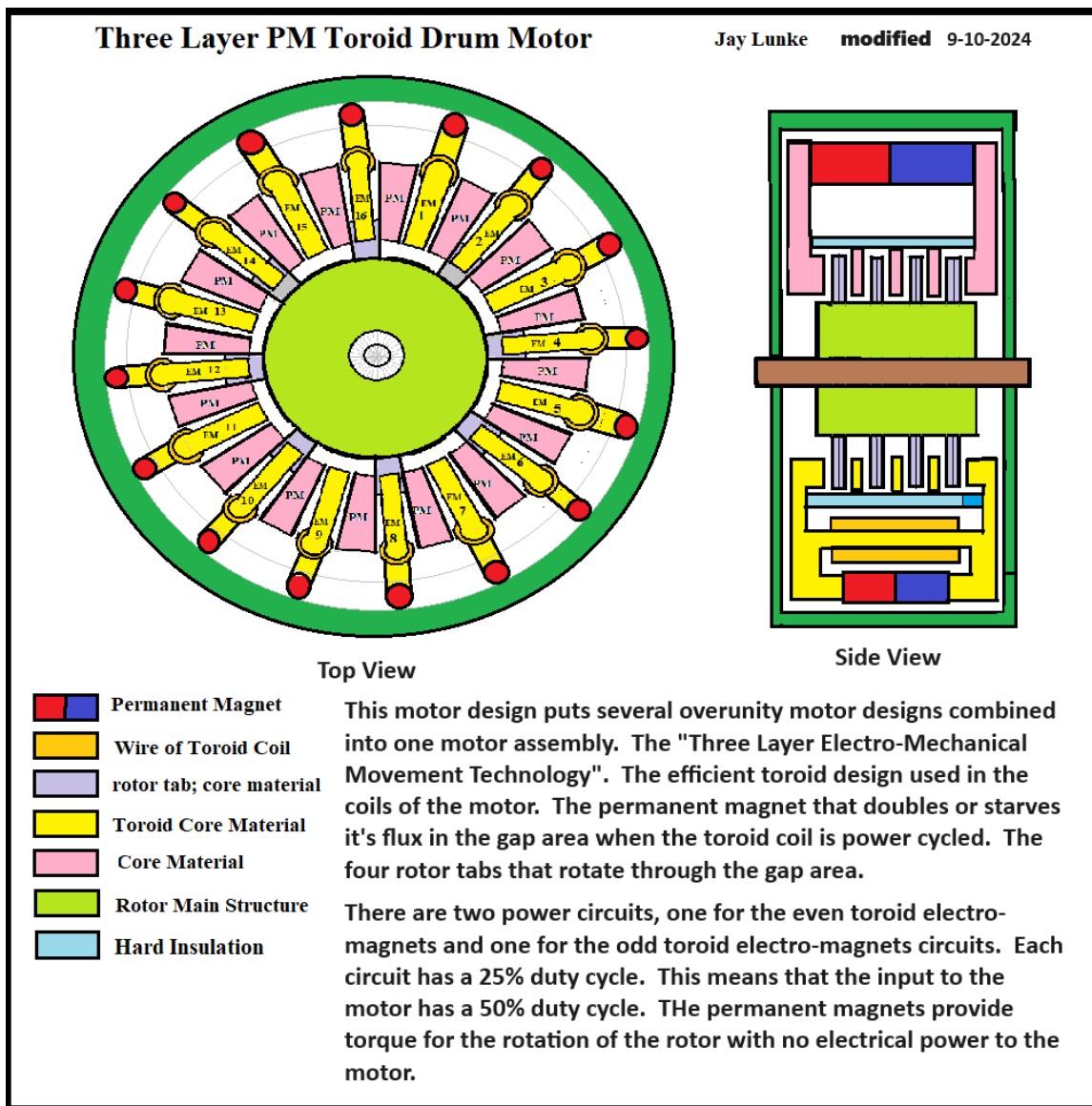
Three Layer PM Toroid Drum Motor

Jay Lunke modified 4-12-2024



- Permanent Magnet
- Wire of Toroid Coil
- rotor tab; core material
- Toroid Core Material
- PM Core Material
- Rotor Main Structure
- Hard Insulation

The theory here is that if the flux generated in the toroid coil aligns each of the rotor tabs, that the collective torque to move the drum in the motor will be greater than the same toroid coil moving one rotor tab. This would be like multiplying the torque. It is like torque amplification.



The drawing above is designed to double the flux in the gap area of the toroid electromagnet. Increasing the flux increases the torque of the motor.

The next three sketches show different options that will ensure that the functional magnet in these motors will move the rotor to the center of the electromagnet.

One approach is to have the electromagnet produce a stronger magnetic field than the permanent magnets.

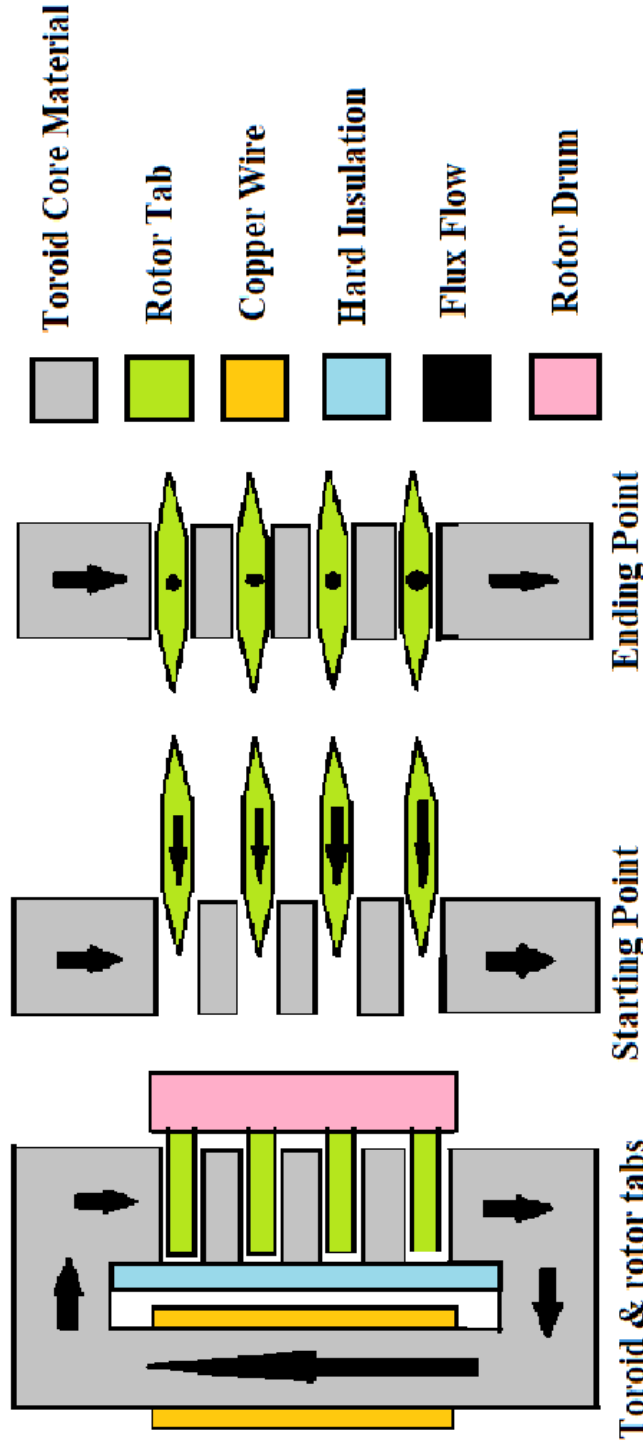
Another approach is to have the stator core material in the functional toroid assemblies closer to the rotor tabs than the permanent magnet assemblies.

Another approach is to have a larger surface area coverage of the functional electromagnets than the permanent magnet assemblies.

The shape of the tab will be a major design consideration. You want part of the rotor tab to be inside the functional toroid coil area when the permanent magnet has the tab centered into itself. Then when the power of the functional toroid is turned on, it will have torque to move into the proper ending position it has been designed to end up in. This is usually centered with the electromagnet core of the toroid coil.

Tab movement in a PM Toroid Drum Motor

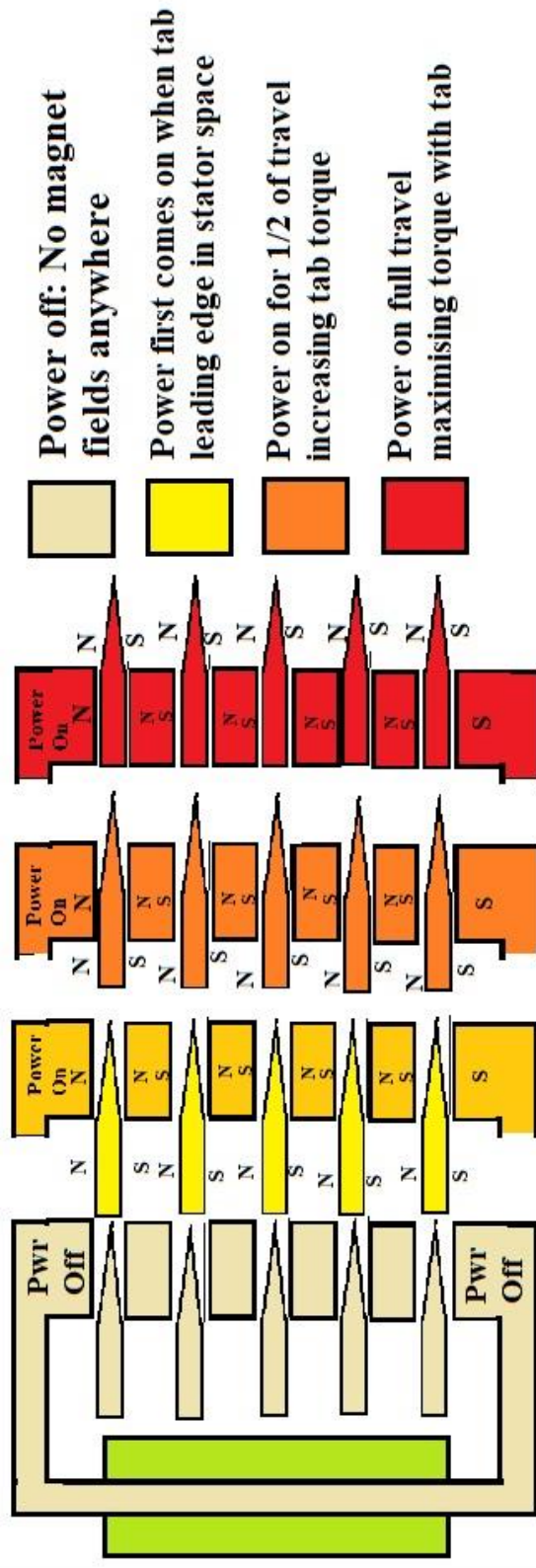
Jay Lunke 12-21-2022



The theory is that the toroid wants to have an easy route for the magnetic flux to flow in the loop. Core material makes an easier route for flux to flow than an air gap. At the starting point when the power is applied to the toroid copper wire, the flux is at the leading edge of the rotor tabs. The tab is thicker in the middle of the tab. This creates a torque between the tab and the toroid core to move the tab all the way into alignment between the tab and toroid core material.

Testing shows that more torque is added to the system with each layer of tabs in the rotor assembly up to 4 layers. The increasing sum of air gaps in the gap area with additional rotor tabs limit the torque amplification.

Theory of torque amplification:



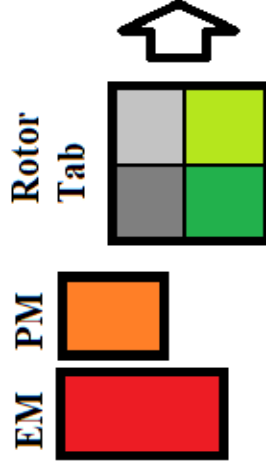
This shows one of the four segments of configurations of the drum motor to move the rotor tabs in the stator assembly. When the power is off on the toroid EM, there is no or minimal magnetic fields in the stator EM assembly. So the EM will not have torque on the tabs of the rotor. When the toroid EM is turned on, all of the core sections of the stator EM have flux flowing through them. The magnetude is minimal when the power is first turned on and the rotor tab is only partly in the space between the EM core spaces. This is enough to create a torque to pull the tab all the way in for maximum torque. Once the flat part of the tab is aligned with the stator core pieces, the power is turned off for the next segment.

In theory each additional tab to core section of the EM assembly will produce torque between them with minimal increased input power to the toroid EM to do it. This is torque amplification in theory!!! This is a "free energy device" !!!!!!!

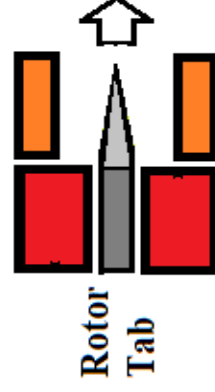
More Rotor Tab Options



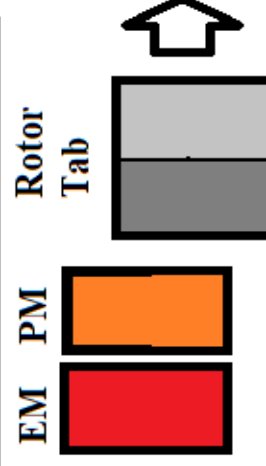
Side View Option One



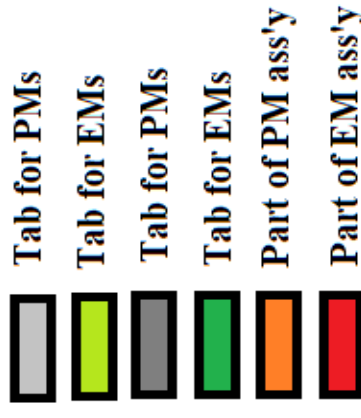
Top View Option One



Side View Option Two



Top View Option Two



These two options cover two segments of travel. One PM and one EM. The first segment of the tab is tapered which helps to direct the torque to the second segment of the tab. The second segment of the tab supports the designed torque between the PM or EM with the rotor tab assembly. The distance from the tab to the EMs is shorter in order to have more torque than the PM to rotor tab assembly. This insures that the motor will always have forward torque for rotation. The tab being two segments wide with the tapered end of the tab in the leading component will insure that the trailing component in the stator assembly will have little affect of creating resistance to the forward movement of the rotor assembly. Either options can also be used in the drum rotor assemblies as well.

Jay Lunke 12-27-2022

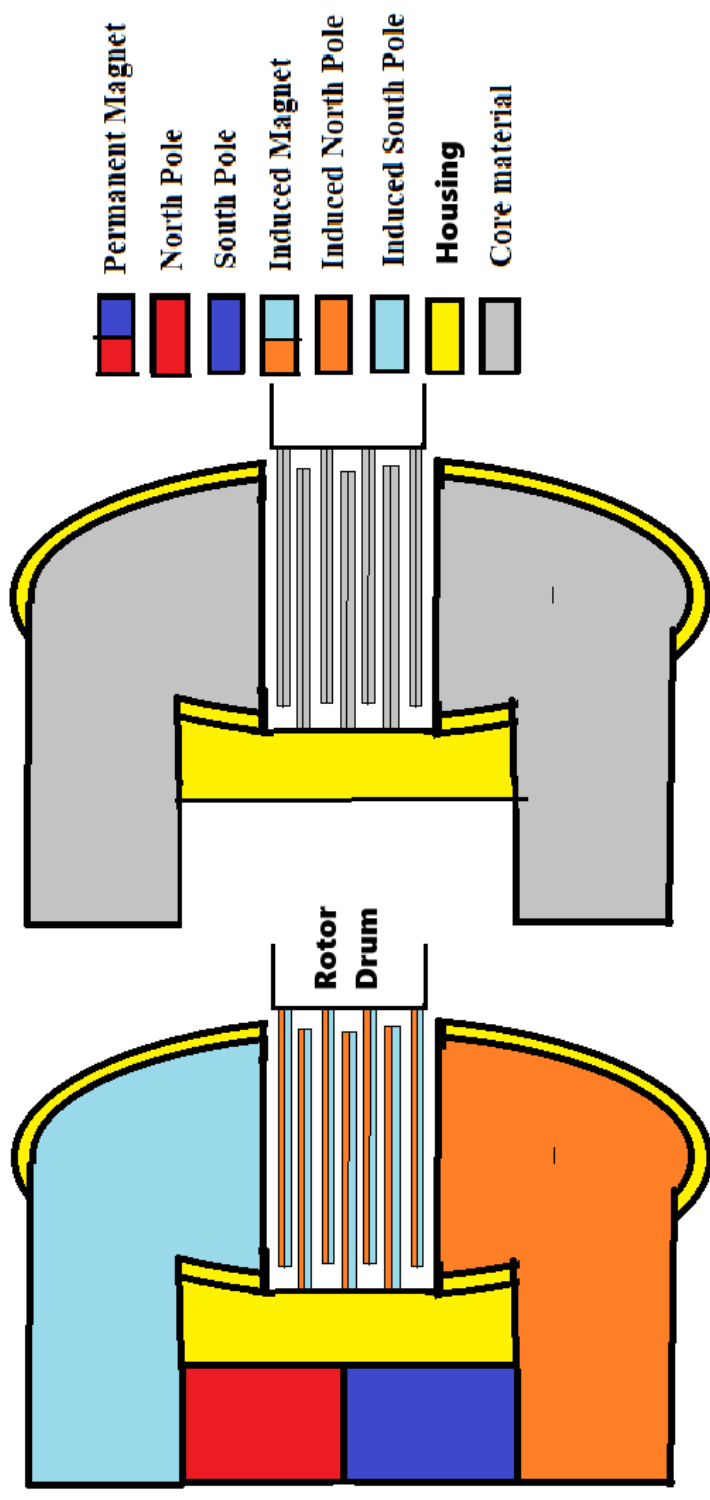
Note: After testing the torque in the two test fixtures I built, the torque to pull the rotor tab occurs even outside of the magnetic gap between the magnetic poles of the magnet in the fixture. I saw from the hands-on testing, that the best performance may be when the stator and rotor tabs have the same surface area as the magnetic poles.

One way to verify if a Three Layer Electromagnetic Movement motor is operating with better efficiency, is to build the motor without the permanent magnets first leaving room for the permanent magnets to be added later and test the motor. Then add the permanent magnet assemblies into place and test the motor performance a second time. If there is no improvement, then leave the permanent magnets out of the design.

In my hands-on testing, the thinner the stator and rotor tabs were, the better the performance of torque gain was in the device. The test fixtures I built had a permanent magnet across all of the stator tabs that were held in place with an air gap between each of the tabs. The rotor tabs were on a different assembly that held an air gap between the rotor tabs. In this way the rotor tabs could move through the stator tabs without any of the tabs touching each other.

The building of test fixtures to test a sub-assembly or function of the final device can be very instrumental in improving the design. It gives you a better understanding of how the technology works. There is no substitute for building and testing electromechanical devices yourself. The knowledge you can gain in the process of doing this cannot be measured.

Option for magnets for one PM ass'y in drum toroid motor



The gap area is where the rotor tabs alternate with the stator tab areas.
Without a permanent magnet the tabs do not have any magnetic fields in them.
With a permanent magnet, the flux flow from the permanent magnet induces magnetic characteristics into the core materials.

Jay Lunke

A permanent magnet is an easy way to test out many electromechanical devices. A permanent magnet is installed in place of the coil to represent a coil with the power on. The core material subjected to a flux flowing through it creates a magnet. When the toroid wires have current flow through them, then the core material is magnetized. The flux reaching the rotor drum tabs also cause the tabs to be magnetic. So, when properly designed, you will have a magnet in the stator assembly interacting with another magnet in the rotor assembly. This creates torque of attraction between the rotor and stator assemblies. The rotor and stator must never touch each other. The torque will do the next best thing of aligning the rotor drum tab to the active stator components.

Question: Does the toroid functional coil current draw and strength of the magnetic field depend on the largest air gap in the toroid coil loop or does it depend on the sum of the air gaps in the loop?

I first thought that if it depends on the largest air gap of the loop then the power to move one tab would be about the same as having 10 tabs gaps per coil in the loop. If the torque between each tab in the drum is the same as having one tab in the motor, then there is the sum of

torques added to the motor's performance. This would be a torque amplifier.

After testing one up to multiple rotor layers in a test fixture I found out that the rotor tabs operate with more torque the closer the rotor tabs are with the stator tabs of the magnet. I found out that the second tab does not double the torque in the test fixture. Once I got to three or more-tab placements away from one of the magnetic poles, the change in torque in the motor was very small.

I used the core material from a large toroid coil I bought from a surplus store. It was purchased several years ago. Different core materials have a different performance characteristic in them. For the toroid motor designs I use, I want a material that does three things.

The first you want from the material is one that produces the highest flux strength through the material as possible. The second thing you want is for the smallest residual magnetism in the material when the toroid power is turned off. Thirdly you want the material to transition from one state to the other as fast as possible.

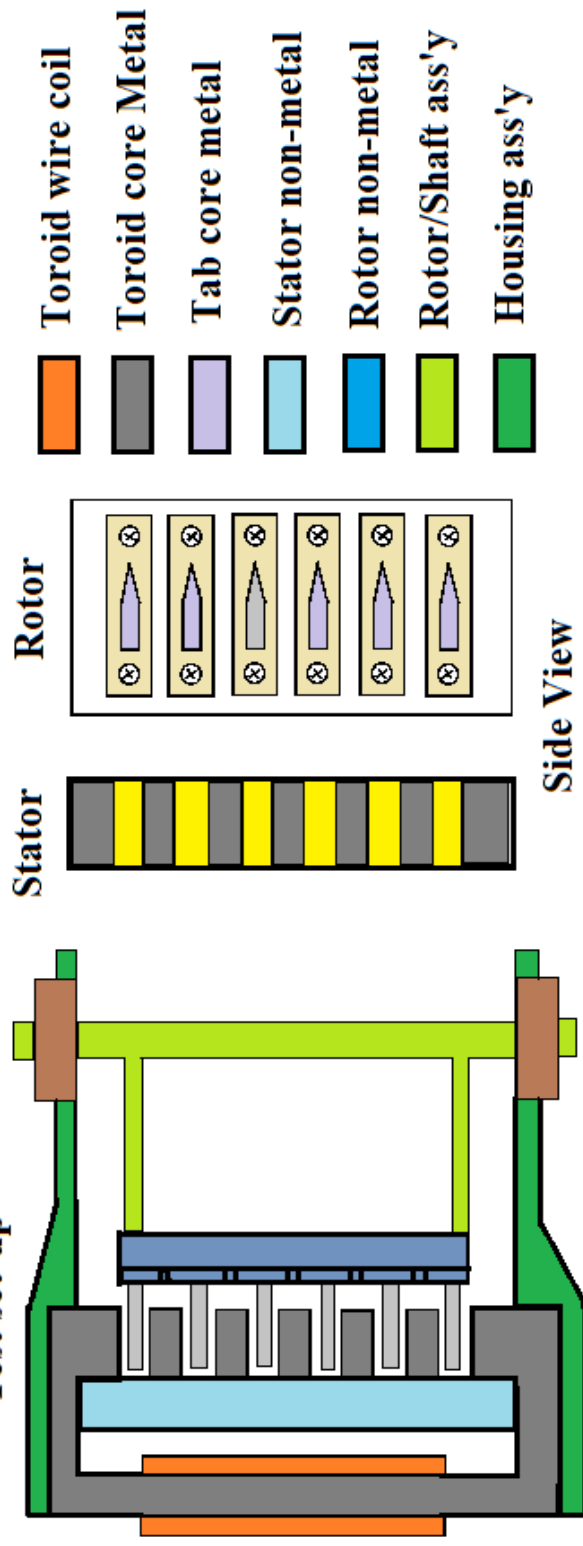
Test Fixture for testing torque amplification:

The first thing you want to do is to prove torque amplification using the core material you have selected to use for your motor before building a prototype motor. A test fixture with one toroid hybrid assembly for the stator and one tab column on an arm for the rotor is all you need. On the rotor assembly you want screw in or snap in tabs to the arm so that you can test anywhere from 1 to 10 tabs in the test fixture. For the stator assembly, you want to be able to install plugs of core material where the rotor tab pieces have been removed. You only want openings where the tabs on the rotor arm are allowed to swing through the stator assembly. You can then test the torque of configurations of 1,2,3,4,5 and more tabs. Plotting the input coil energy to torque output. This will determine if this technology has torque amplification with the core material you have selected. It will also show the distance the rotor tab needs to be to the stator tab to generate torque between them. Once this testing has been completed, you could add permanent magnet assemblies on each side of the functional toroid assembly in order to evaluate the three-layer electromechanical

movement technology along with the toroid drum motor technology.

Building fixtures to prove out a technology can save a person a lot of time and money. It may also show you something you had never thought of before. I was testing a couple of fixtures I made for my motionless switching magnetosphere electric generator that I was testing that showed me how much greater the toroid coils function over the solenoid coils. I learned so much about toroid coils and how they could be used with other technologies I have been working with for other motor designs. It also showed me how important the power delivery system to the motor is in the motor's operational efficiency. So, building a fixture like the following one along with the testing of them can make all the difference in the world!

Test Fixture to Test Amplification of Circuit Test set-up



Optional Plugs made of core material to be placed in stator opening when a rotor tab assembly is removed from the rotor testing arm. In this way test data can be tested with 1,2,3,4,5 or 6 tabs in place.

This test fixture is to collect test data of the input current to the coil verses the torque generated on the rotor arm for the different numbers of rotor tabs in the assembly. When a rotor tab is not in the test arm, then a plug in the stator gap needs to be placed into the fixture. This test should determine if there is torque amplification with this technology.

Information added to book

Through the testing I have done, I have learned a few things I wanted to add to this book. As I have already said that the core material acts different than a permanent magnet when interacting with an electromagnet. The core material is attracted to either of the electromagnet's poles. So, the core material is always attracted to either the magnets north pole or south pole. Keep this in mind as you perform design work. You do not want the core material to physically touch the magnet, but you want it to be as close as possible to the pole. You want the rotor core material to have as small of a surface area as possible, but not smaller than the electromagnet core surface area. I believe that the core surface area will have the best performance when it has the same surface area as the magnets pole surface area.

I have come up with a new design that has removed the permanent magnets adjacent to the electromagnets. One reason is that the motor may have more power than the last motor we looked at. This new design has the toroid coils all next to each other. This gets away from the three-layer electromechanical movement technology for this later design for the toroid coil designs. The three-layer

electromechanical movement is still the best design when using the non-toroid coils in those motors. Toroid motors could be built each way and then you could use the design that works the best for the application that it needs to be used in.

The drawing below shows a thick rotor block. In the testing I have done so far, the thinner the rotor core material in the tab sections of the motor, the better the performance the motor assembly will be, within limits. I do not know where that limit is. Different materials used in the core material will likely create different limits in the motor's performance.

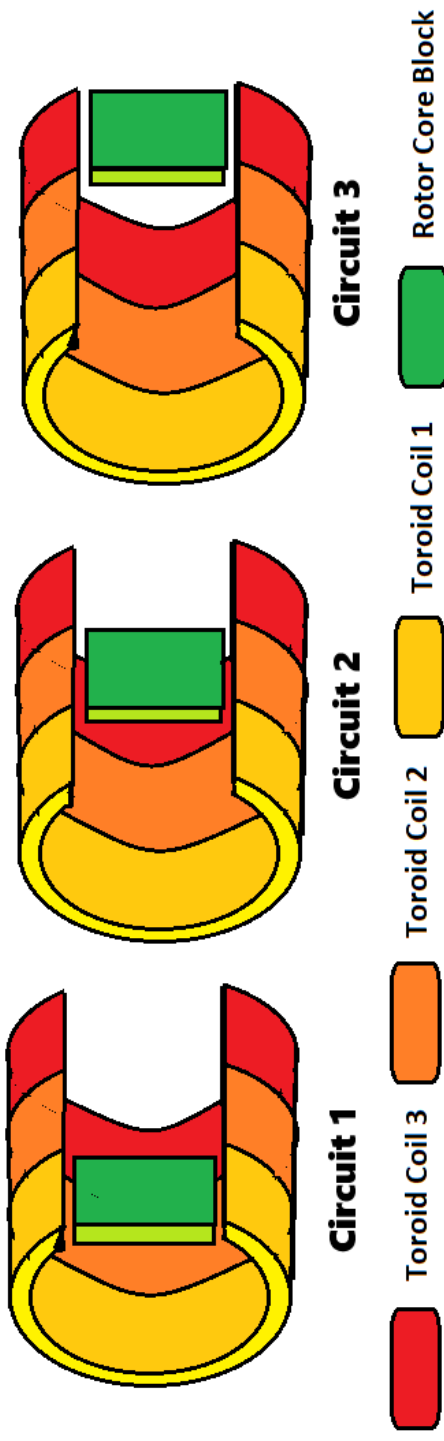
The second drawing shows how the rotor can move in a motor assembly. First of all, one of my test fixtures proved that when the rotor tab is a little outside of the gap between the north and south poles of the magnet, that there is torque between the core material and magnet that pulls the core material into alignment with the poles of the magnet. When the magnet power is turned off, then the torque goes away. As the power is turned on to the next electromagnet, then the rotor moves to align itself between the poles of the activated magnet.

There are three groups of the magnets that alternate being tuned on. The reason for this is because if there were only two magnets in the cycle, then there would be just as much torque to pull the rotor backwards as forwards. With three magnets in the cycle, the magnet behind the rotor will be powered off when the forward magnet power is on. This requires a 33.3% power cycle for each of the drive circuits for the motor. This is a cooler operating motor than conventional motors. The position of the rotor to stator pieces provides optimal torque with this toroid motor design.

Now the three circuits alternating 33.3% power to the motor, means that power is supplied all the time to the motor in order to keep forward torque on the motor for full rotation of the rotor.

Even though the “Three Layer Electromechanical Movement” design only requires input power for 50% of the time, this new circuit may be the way to go. Only building both motors and comparing the test results between the two designs will determine the best design for sure.

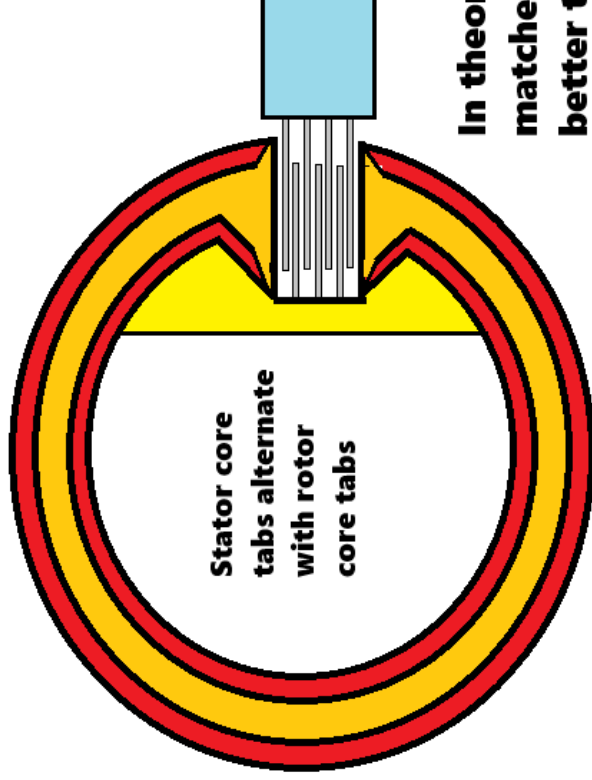
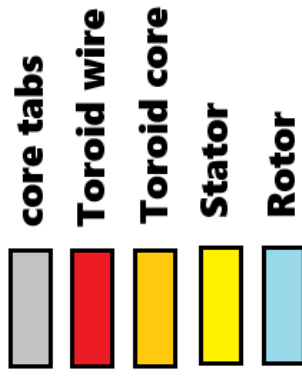
Hybrid Horseshoe Toroid Power cycle



This new technology is grouped into three circuits. Several toroid coils are put together into one large circle of a multiple of three so that as the circuits alternate between being turned on then the rotor assembly will keep on rotating in the motor. Each circuit will have a 33.3% duty cycle. With three toroid coil circuits alternating the power on to the coils, there is no reverse torque applied to the rotor core block because when the power is turned off in the current power circuit, the trailing toroid already has the power off. The forward toroid coil has its power turned on that causes only forward torque to move from its current position into the next forward position. This process keeps repeating itself over and over again.

Jay Lunke 9-3-2023

Toroid coil with core tabs



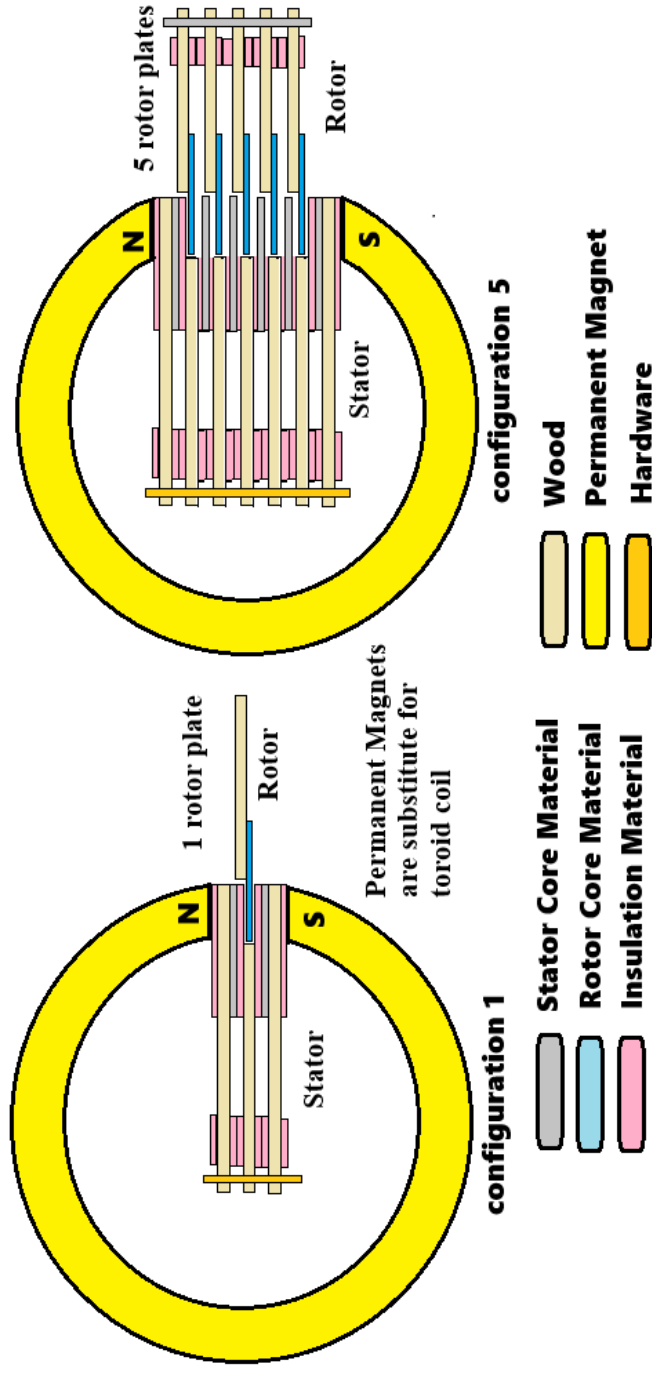
The toroid coil provides more flux flow in a circle than other coil type have little to no flux leakage.

In theory the closer the tab surface area matches the toroid pole surface area the better the motor performance will be.

In theory a changing load has little affect on the power to operate this motor. This is because the output is isolated from the input. This motor has a drive coil but no output coil. Many people claim their toroid generators will have little change in the torque to drive their generators with a changing load. Hopefully the same is true in this motor assembly. The four rotor tabs is to produce 228% of the torque of a single tab rotor assembly.

Jay Lunke 9-3-2023

Test for torque amplification when using more rotor and stator plates.



This drawing shows the crude fixture I built to prove the amplification of torque using multiple layers of rotor tabs moving through stator tabs. There is an additional wood piece on each side of the gap area the prevented the permanent magnets from crushing the tabs in the fixture. Electricians tape was used to insulate the stator tabs from physically touching the rotor tabs. The test results could be different with a better fixture, materials and spacing. The 4 rotor tabs tested at 228% of the single rotor tab test.

Jay Lunke 9-3-2023

The drawing above is the test fixture I used to evaluate torque amplification of using different layers of stator and rotor core pieces in the fixture.

I used tongue depressors for the wood sections of the test fixture. I used electrical tape for the insulation parts of the fixture. The reason I did this is to prevent contact of the rotor to stator metal parts. I cut small sections of core metal that I got from a toroid coil I took apart. I do not know what material that the core was made of. It was soft metal. I used a wood piece on each side of the gap of the test fixture to prevent the magnet from crushing the test area. If I did not have to use these two additional wood pieces, I may have received different test results. I started with one rotor tab and added another rotor and stator tab before the next test data point. Since the best test results were using 4 rotor tabs, I use that data point as 100%.

1 tab = 42%;

2 tabs = 67%;

3 tabs = 97%;

4 tabs = 100%;

5 tabs = 85%;

6 tabs = 77%

This is great news because for me it proves that there is torque amplification using layered stator and rotor tabs in a motor design. So, we can over double a motor's performance with this concept.

You may wonder how would thicker tab sections work in this motor design. I had another fixture that the rotor-to-rotor tabs were 1 inch apart and I got the following results compared to the testing with the thinner rotor and stator tabs. I used the same magnets for both test fixtures.

1 layer rotor = 45% of first fixture 4-layer value

3-layer rotor = 49% of first fixture 4-layer value

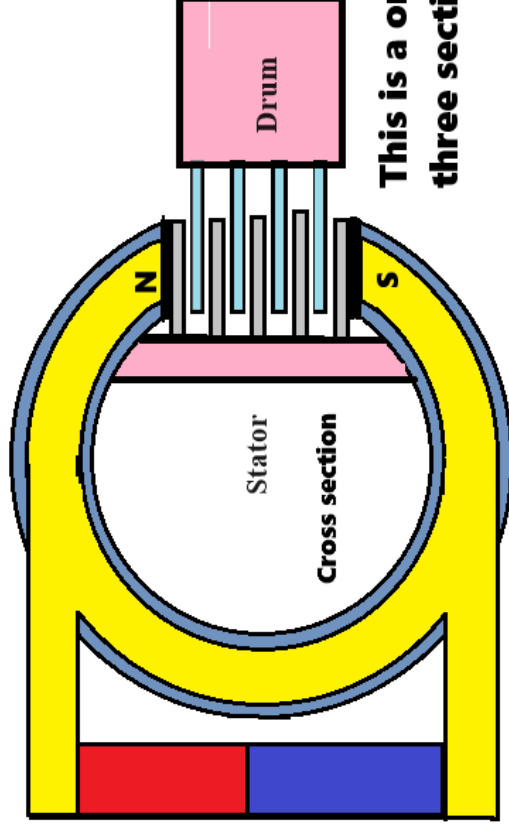
5-layer rotor = 59% of first fixture 4-layer value

11-layer rotor = 54% of first fixture 4-layer value

I found out quickly that thicker rotor and stator tabs did not function as well as the thinner rotor and stator tab sections.

One section of multi section PM/Toroid Drum motor

Jay Lunke modified 4-17-2024



This is a one motor section of a multiple of three sections: 15, 18, 21, 24, 27, 30 ext.

The inclusion of the permanent magnet to the toroid motors in theory will double the torque of the motor. The permanent magnet changes its flux flow depending on the power of the electromagnet. When the electromagnet power is turned off, then the flux will take the shortest route and use the core material of the toroid coil to bring the flux back to the other end of the permanent magnet. When the power of the electromagnet is turned on, then the direction of the flux flow in the toroid coil prevents the flux from the permanent magnet from taking the short route back to the permanent magnet. The flux from the permanent magnet routes through the gap area of the toroid coil. At the same time the flux from the electromagnet moves through the gap area. This means twice as much flux is flowing through the gap area. Doubling the flux should in turn, should double the torque in the motor.

The drawing above is mainly showing the addition of the permanent magnet to the design. For many years several electromechanical designs have a permanent magnet in the design in order to amplify the torque in a specific area of the device. Some of these people have their PhD's. Some of them were in engineering groups and formed companies around these devices. So, I could build this feature into my motor designs for myself, but I am not sure if I could build one and sell it to someone else. I believe their patents are over 20 years old, but that needs to be checked out as well. But this feature in theory could increase the power of motor designs up to 100%.

So, why have I added this feature into my design?

The reason, is because it may take using several ideas placed together in one design to bring a device up to an over unity device status. In my motor design, the addition of this permanent magnet will add flux flow into the toroid gap area when needed for the operation of the motor. This magnet has two different flux paths depending on whether the electromagnet is turned on or off. When the electromagnet is turned on, the flux is blocked from flowing through the left side of the toroid magnet but is rather added along with the toroid coil flux that moves through the gap area of the device. When the electromagnet is turned off, then the permanent magnet flux flows through the left side of the toroid magnets core.

Note: there may need to be one or two small air gaps added somewhere in the design in order to insure the operation of these functions.

The following drawing shows a little closer how the motor might look like. Note that the insulation is removed between the magnet and stator core material plates and also removed between the stator and rotor plates. This means that the stator hardware and rotor hardware need to hold the air gaps between all the core tabs from touching each other. The hardware that holds these plates should **not** be metals or other materials that interact with the magnetic field.

The drawing below also shows what the rotor disk could look like. Note that the disk has material between the rotor core tabs that move between the stator tabs without touching them. This material does three things. First it helps to hold the rotor core material from flexing too much when going through the energized electromagnet gap. The other thing is that it reduces the air friction during rotation of the rotor assembly. One more thing is that it could improve the strength of the rotor in order to operate without falling apart at higher speeds up to a limit.

Notice that in each of these three torque amplification techniques, that the core plays a major part of the technology.

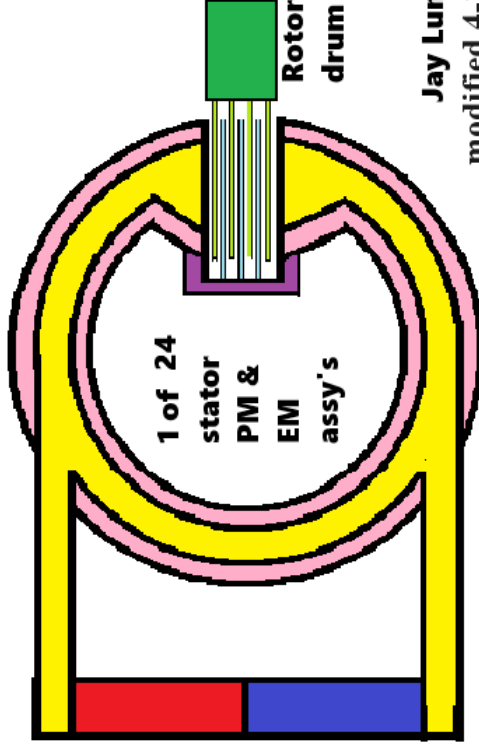
- 1.) The core in the toroid coil has the alignment of the atoms that produce more flux in the toroid coil that in turn produces more torque in the motor. This can be many times stronger than using an air core coil. Of course, more flux requires more electrical energy to produce the torque. This alone will most likely not produce an over unity device by itself.
- 2.) The core material in the four-layered rotor assembly of the toroid gap area amplifies the torque over twice as much through a constant flux flow. In theory, this means more torque with a constant flux flow.
- 3.) The core material in the hybrid toroid coil has two different paths that the permanent magnet flows through depending on the power state of the toroid coil. The additional flux in the gap area of the motor produces up to twice as much torque as a design without the permanent magnet.

Note: See how these three methods can improve the motor performance when all three are used together in one motor device. Let's say the toroid with an air core is 100%. Now you add the core material and the flux increases by 4 times the amount of flux. This means 400% of performance over the air gap design. Remember that we also have to increase the input current for this improvement.

The new high-power magnets can provide as much flux as the toroid coil with a core. The permanent magnet in the design doubles the toroid coil's flux. The addition to the system of the magnet will double the power of the motor with the same operating current. Now you add another technology of adding 4 rotor tabs moving through stator tabs that over doubles the torque in the gap section of the motor.

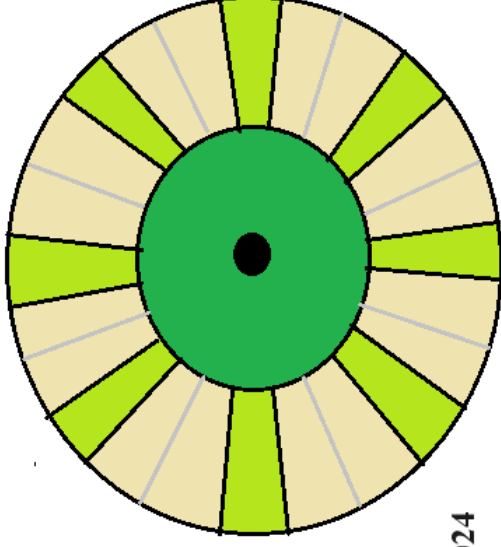
These three improvements to the motor design, increases the power of the motor by 16 times by only increasing the input power by 4 times.

Results of layered rotor tab layers for this motor design



Jay Lunke

modified 4-17-2024



Three torque amplification motor design

One layer of drum rotor

The motor has three torque amplification techniques in it. Two of these amplification techniques lead to a total of torque amplification of over 4 times without increasing the power to operate the motor in theory. The one torque amplification technique of driving more current in the toroid coil with core material in it in order to bring the core material half way to the saturation point does not change the COP value of the motor by itself. The permanent magnet flux plus the flux of the electromagnet will bring the core up close to the saturation point of a good motor design.

The rotor should be designed with a non-magnetic material between the rotor tabs in order to strengthen rotor tabs in the rotor assembly. It must not touch the stator assembly parts while the motor is operating.

The torque amplification gives the motor more power per pound which needs more power to drive the motor. The greatest thing is the torque amplification occurs when the input power is the same. This increases the COP by 4 times in this motor design.

Are these new technologies over unity?

The toroid motor I added in the last chapter with torque amplification already is a strong candidate for an over unity device. The three technologies used together in the motor can improve the torque several times. But without building a full prototype device, I will not know for sure. Remember that this latest motor design has a three-segment motor movement, rather than the four-segment movement of many of my other motor designs. But with a few modifications, the four-segment circuitry can be used in the three segment movement motors.

I already spoke about the advantages of the latest motor design, so the following information is about some of the other toroid motor designs I have written about.

50% of the movement of a three-layer technology does not use any external energy for the movement of the motor. Then the stator is reconfigured to a functional magnet. This configuration uses energy for the other 50% of the movement.

The following are additional questions that need to be answered when using any of these motor designs

- 1.) Is the electromagnet using the most efficient electrical stimulation to create the functional magnet configuration having the most torque for the electrical energy used to drive the coil being used?
- 2.) Are you using the best material that allows for the most magnetic forces when the power is turned on while having the lowest residual magnetism when the power is turned off?
- 3.) Does the material have the best change response of its magnetism when the power is turned on and off to the device? Speed of changing from one state to another state!
- 4.) Does the core design reduce the losses for eddy currents in the device?
- 5.) Does the design of the electromagnet with two adjacent permanent magnet assemblies change the location of the north and south poles of the functional magnet?
- 6.) Does the functional magnet operate more efficiently than an electromagnet without adjacent permanent magnets for the same amount of rotor torque and travel in the motor?

Note: If the functional magnet configuration is not more efficient, then the three-layer electromechanical movement should not be used in toroid motor assemblies. Even though the electromagnet with two permanent magnets is operating in the functional magnet mode, the electromagnet may need more power to have the same torque to move the rotor than not having the permanent magnets next to it. But even if there is more power needed, remember that the permanent magnets have torque on the rotor to move it without system power turned on. So, you need to evaluate the full system power requirements to rotate the rotor one full rotation between having magnets in the stator assembly and not having the magnets in the system.

If the permanent magnets did not affect the input current to the electromagnets and did not reduce the torque in the motor and if the magnets with the power off to the electromagnets was as great as the functional magnets, then the power would be twice as much with the inclusion of the permanent magnets. The inefficiencies of the design need to be added up to know how much the efficiency of using the three-layer electromechanical movement technology is in the motor.

Is more than one method needed to achieve a working “free energy” device?

There have been so many free energy devices that claim to be very close to being there but they just need a reduction in some of the inefficient areas of the device.

Common areas of losses that need to be addressed.

- 1.) Heat: Friction is the one large area of heat loss in the device. Another area is circuit resistance in wires and other devices in the system.
- 2.) Unwanted induction: the housing material may cause some drag in the motor rotation.
- 3.) Gap size: With moving parts, you may not be able to have the optimal gap. Results may show reduced torque in the motor movement.
- 4.) Angle of torque: The larger the torque angles between stator and rotor components are, the less the torque for rotation of the rotor will be.
- 5.) Timing of power to device: This is hard to keep optimal power timing through all operational

conditions. If the power timing is off then you could cause reverse torque on the system.

- 6.) DC power on time: It does not take a very long on time for the current draw to be maximized by the resistance of the coil. This is a lot of electrical power loss in the system.
- 7.) Energy dumping: Instead of converting built up magnetic energy into electrical energy when the power is turned off to components, you are letting it dissipate as a lost potential.
- 8.) Core material and design: Mu-metal is a good core material. You could use laminated pieces to build the core with reduced eddy currents. There are even better designs than these to improve core performance in the motor or other devices.
- 9.) Magnet Strength: There are many types of magnets with different strengths, you need to choose one that fits the design of the motor with all of the other components for the most efficiency and performance at a reasonable price.
- 10.) The core material does not go into saturation: Electromagnets and permanent magnets should not push more flux into the core than what the core material can handle.

Note: These are some of the things that can keep a motor from having a $COP > 1$. You could have an open system that the collective losses are greater than the input from a “free energy” secondary energy input, keeping the system performance to a $COP < 1$.

With the “Three Layer Electrotechnical Movement Technology”, the torque from the permanent magnets is the secondary input power source for the technology. If the system losses are greater than that, then the system will have a $COP < 1$.

In theory, the torque amplification of a motor using four rotor tabs per toroid coil should be a $COP = 2.28$ before subtracting the system losses. Most people would be happy with a system $COP > 1$. The reason for this is because we need a strong “free energy” motor to compete with solar and wind power generation.

One of the biggest advantages of using the power of permanent magnets as a secondary input power for a free energy motor is that the power is functioning 24 hours a day. It does not require either the wind or sun light in order to function.

Circuits For free energy devices:

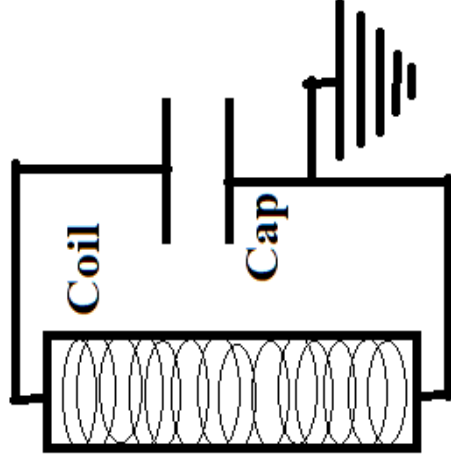
There are too many circuits to count for free energy devices. The fact is, the electrical circuits are just as important for free energy as the motor or generator itself. You need all of the components of the free energy system to be well designed and built. There have been stories of people having free energy systems and then other people are not able to replicate them. So were they false claims, for most of them I am sure of it, but I do not believe all of them were.

When working with circuits that operate at the resonant point, the resonant point is at one specific point. If it is not at that point, then the circuit will fail. When the circuit does operate at the resonant point then you can achieve some amazing efficiencies with that circuit.

The next drawing gives you an idea of how a single pulse into a tank circuit can respond for so many cycles afterwards.

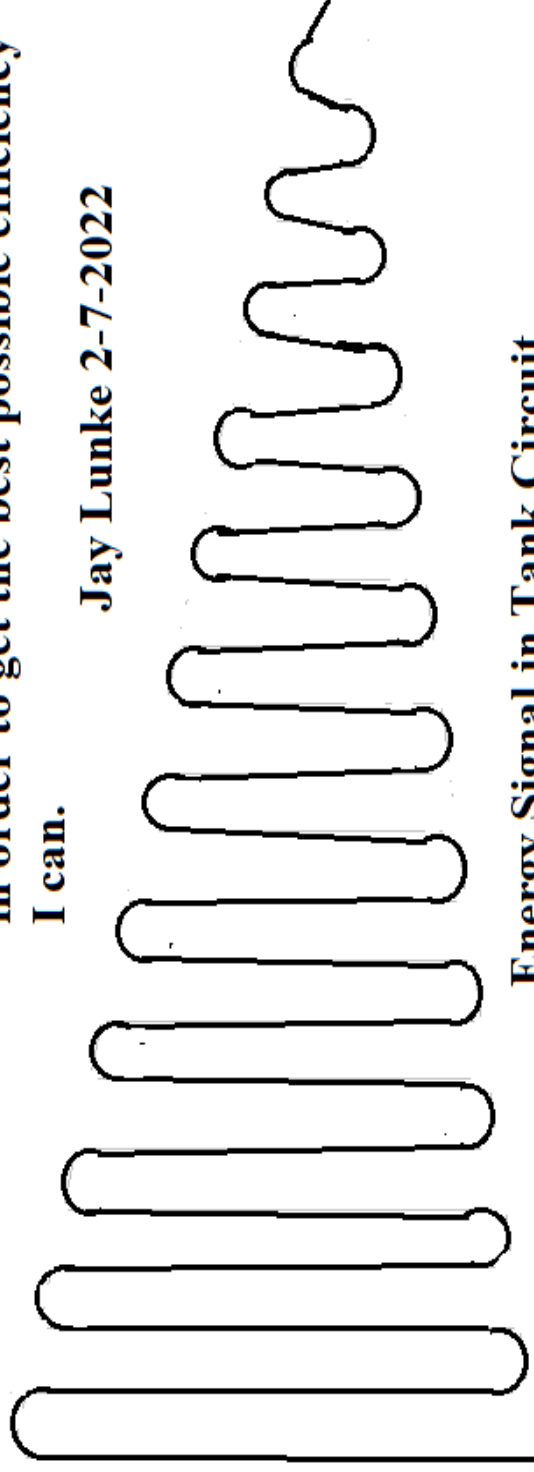
I use a modified tank circuit with steering diodes in many of my motor designs to have a better range of control of these motor drive circuits. I use my circuit to simulate a resonate circuit. In this way I can have close to the same efficiencies with more control over the circuit.

Tank Circuit



A tank circuit operates at its resonant point where the energy goes back and forth between each side of the circuit and can do this very efficiently before you have to add more power to the circuit. So I like to operate my devices using a tank circuit in order to get the best possible efficiency I can.

Jay Lunke 2-7-2022



Energy Signal in Tank Circuit

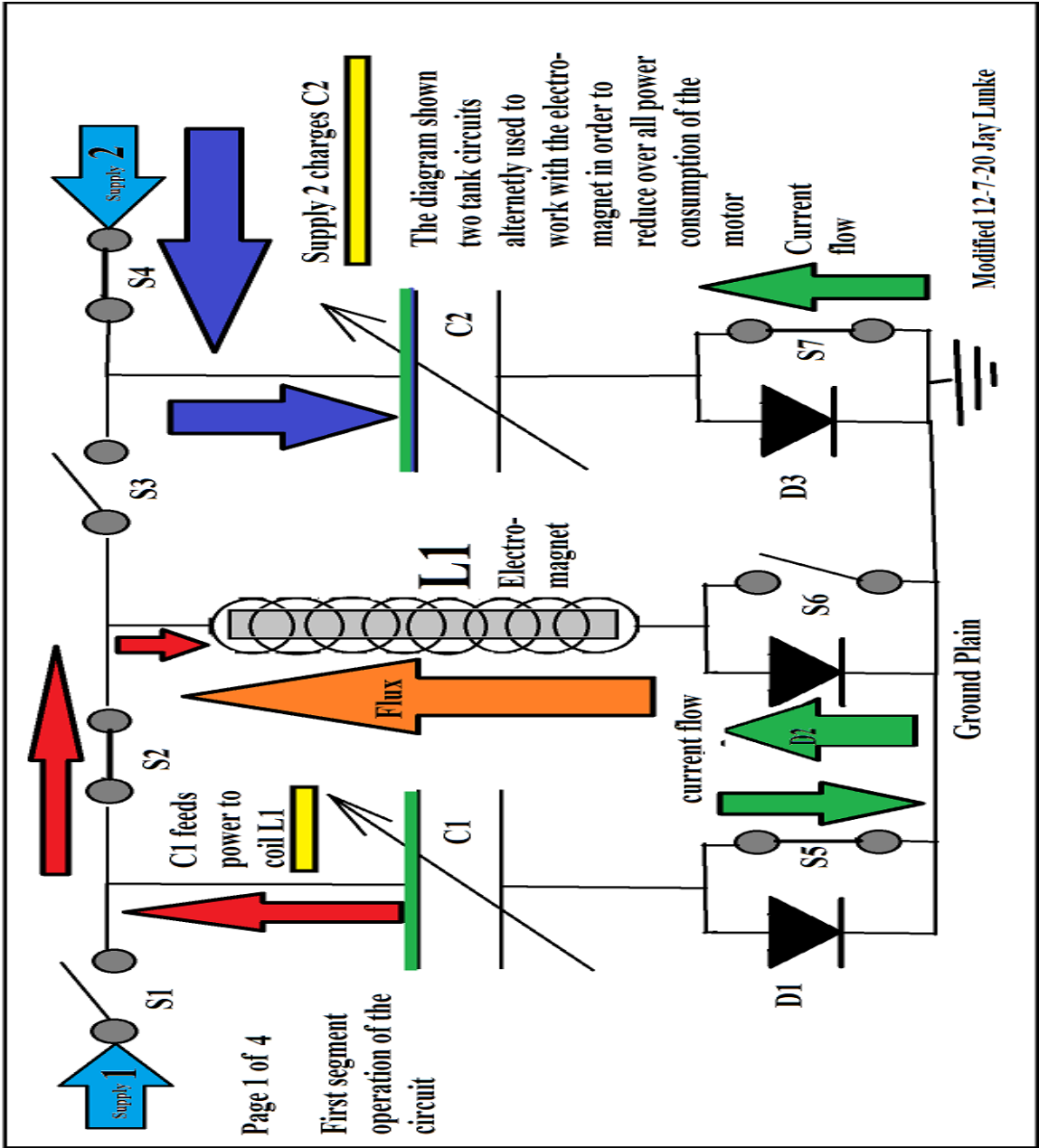
The following several sketches have to do with the performance of a motor drive circuit using the Three Layer Electromagnetic Movement Technology. With this technology, there are four segments of travel as described before. The next four sketches show one of the two groups of electromagnets in the motor system being controlled by it. Since there are two groups of electromagnets in the motor system. Two drive circuits need to be implemented in the system.

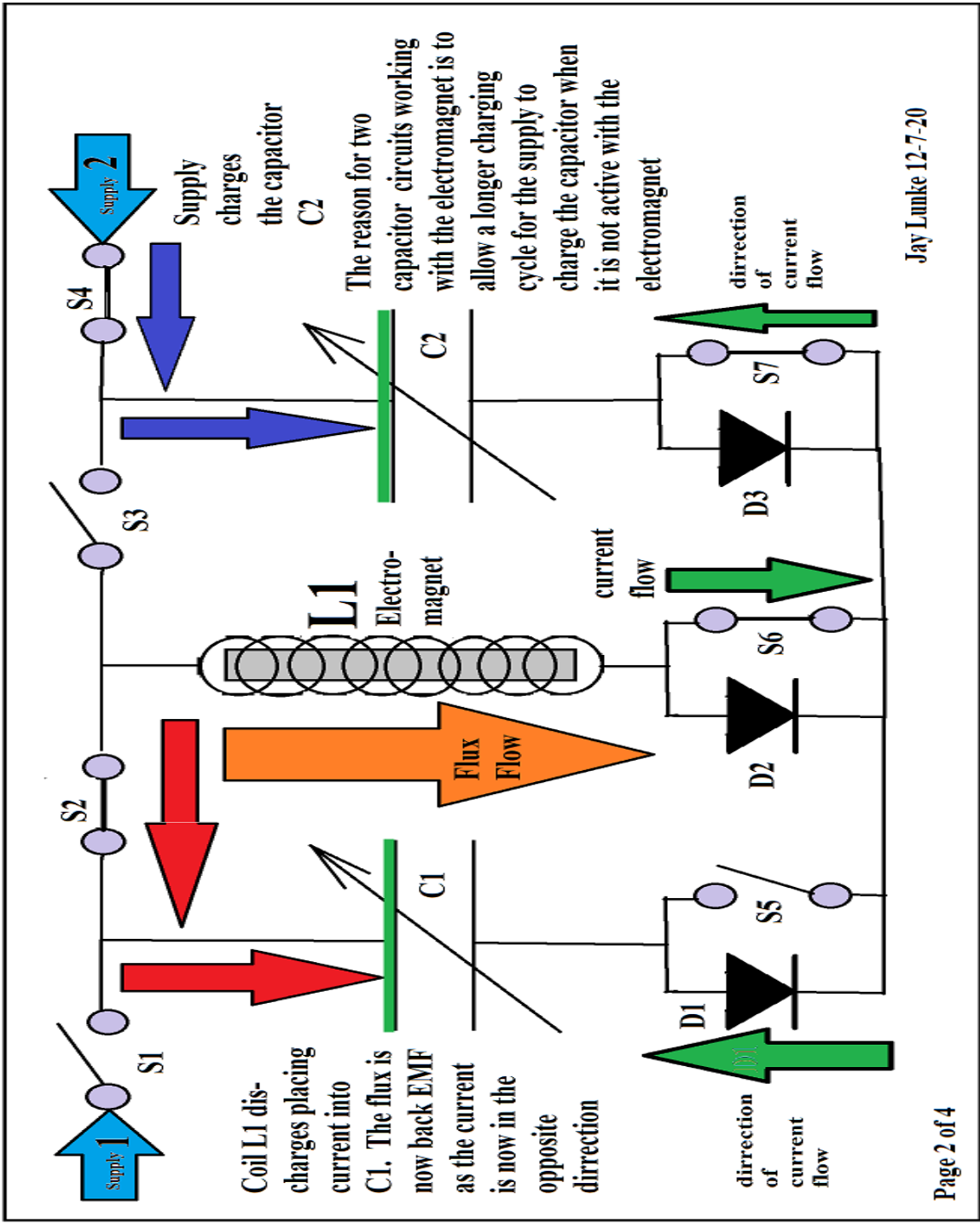
These sketches implement steering diodes in order to simulate a resonate circuit.

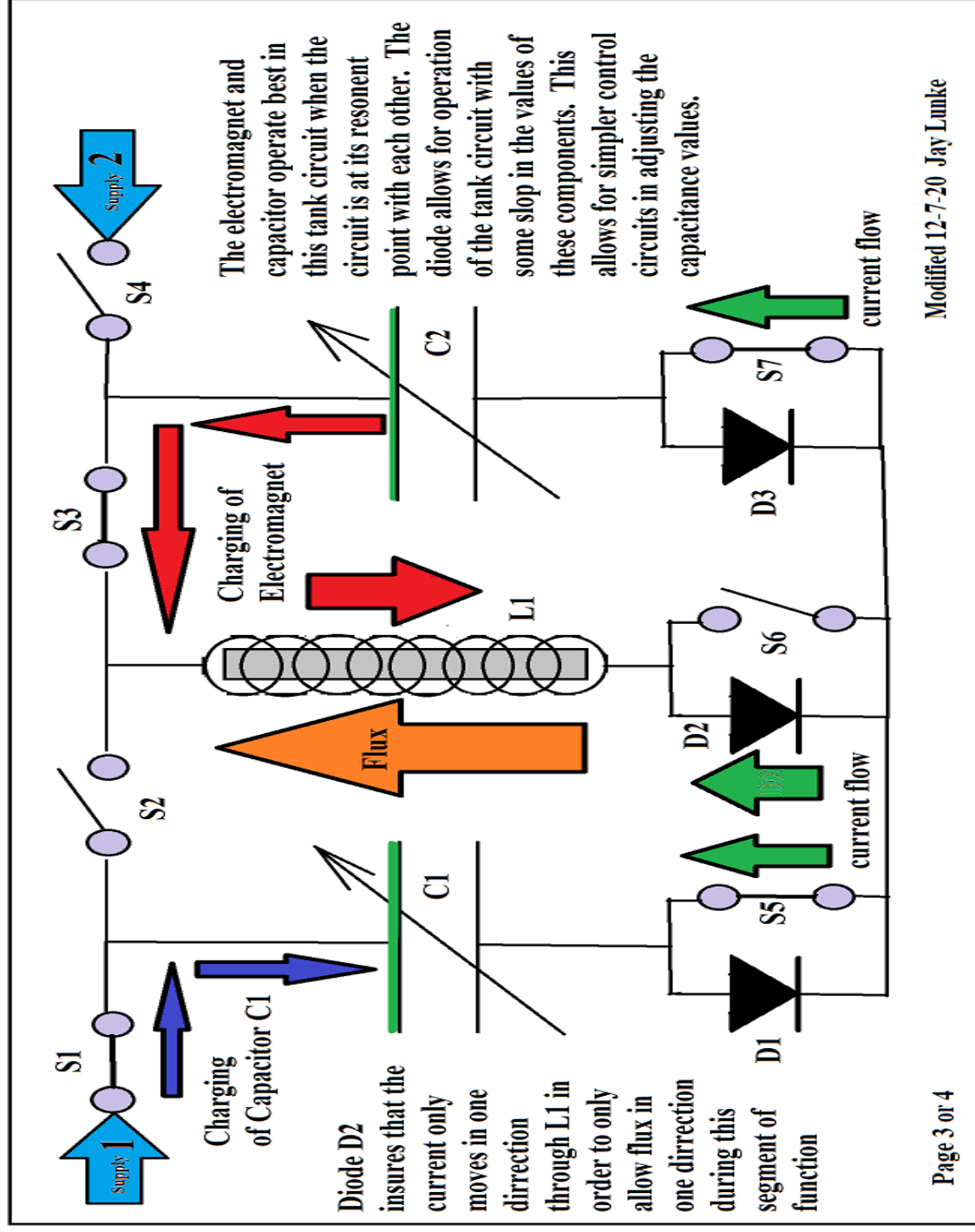
Each group of coils need to be connected in parallel to one of these two circuits. The other group of coils will be connected to the other drive tank circuit.

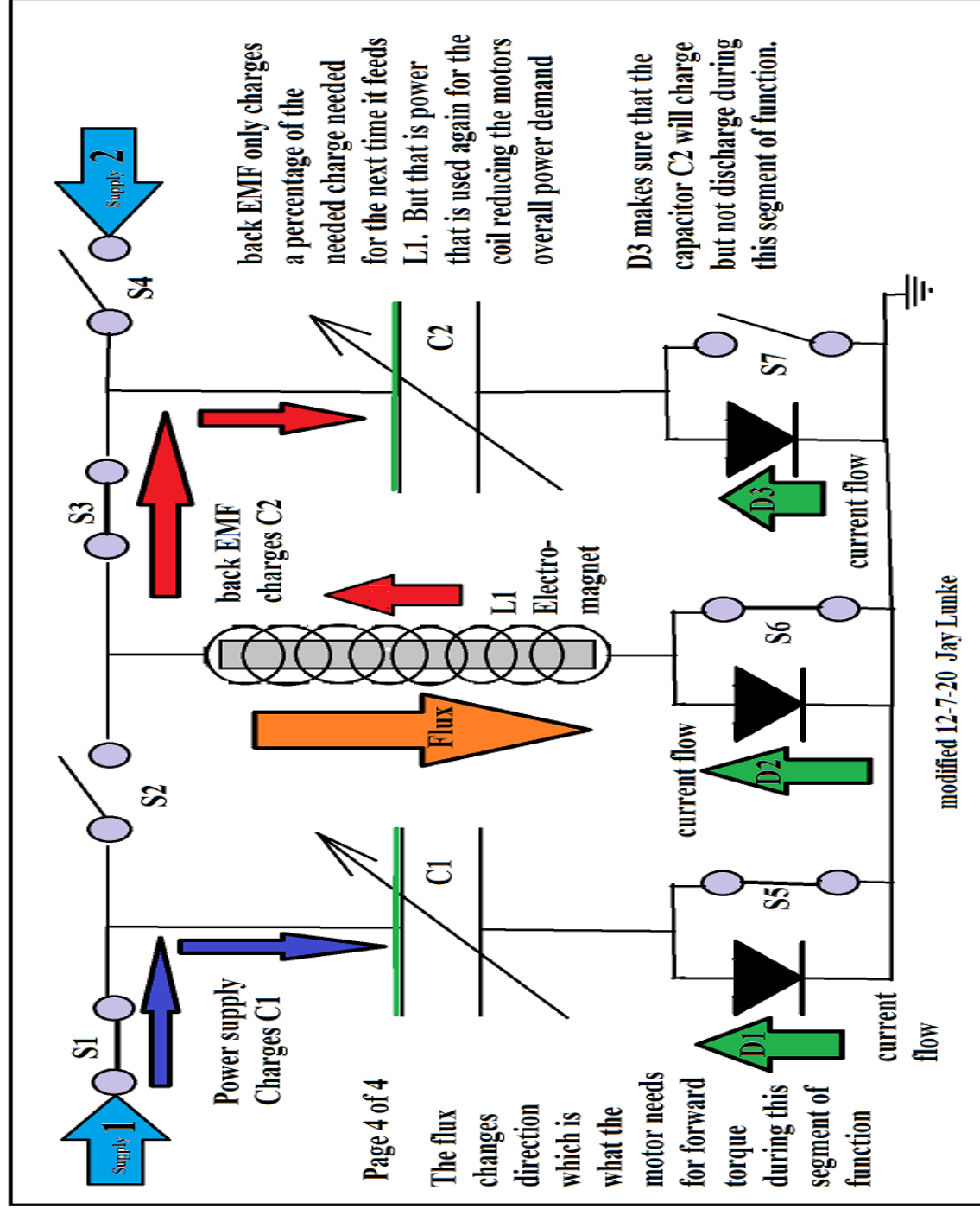
If the application of the motor operates at a constant speed, then you could have pre-determined capacitors in the circuit. During the startup of the motor, you could drive the motor directly to the power supply until the motor comes up to speed.

Drive Circuits:









Following are three sketches with optional logic circuits to use with the modified tank circuits. Logic circuit components are inexpensive. These are old school, but are easy for the hobbyist to build.

There are four segments of travel and seven diodes that need to be switched during the operation of the modified tank circuits.

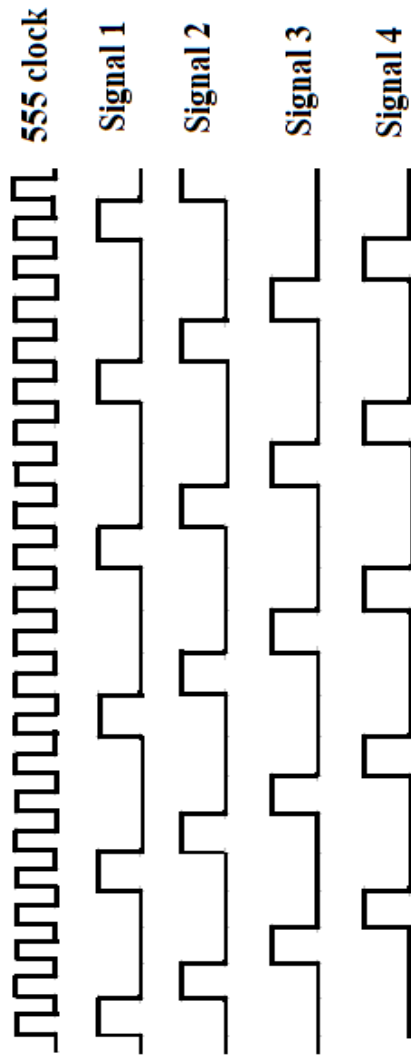
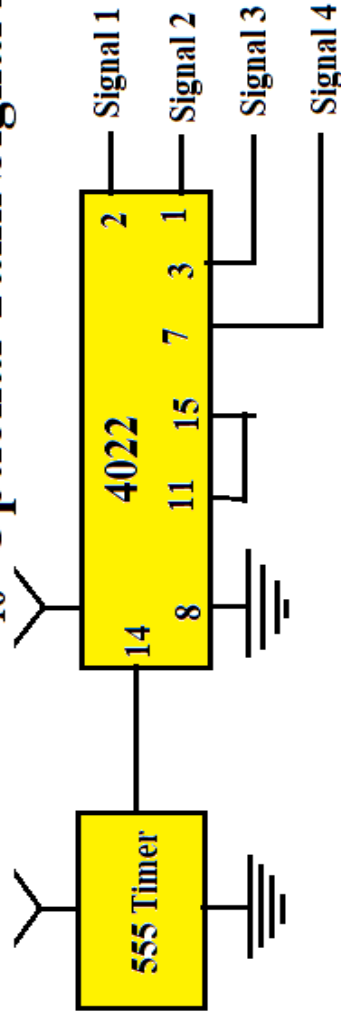
Two of the circuits have to do with setting up the four segment signals.

One circuit has to do with controlling the diodes for each segment of travel in the motor.

There are so many other ways to operate these motors. Some are easier and some are more complicated.

Using a computer with an input output board will provide you with a way to perform the same activities as the other circuits. It does require programming knowledge. This training is easy to get now days.

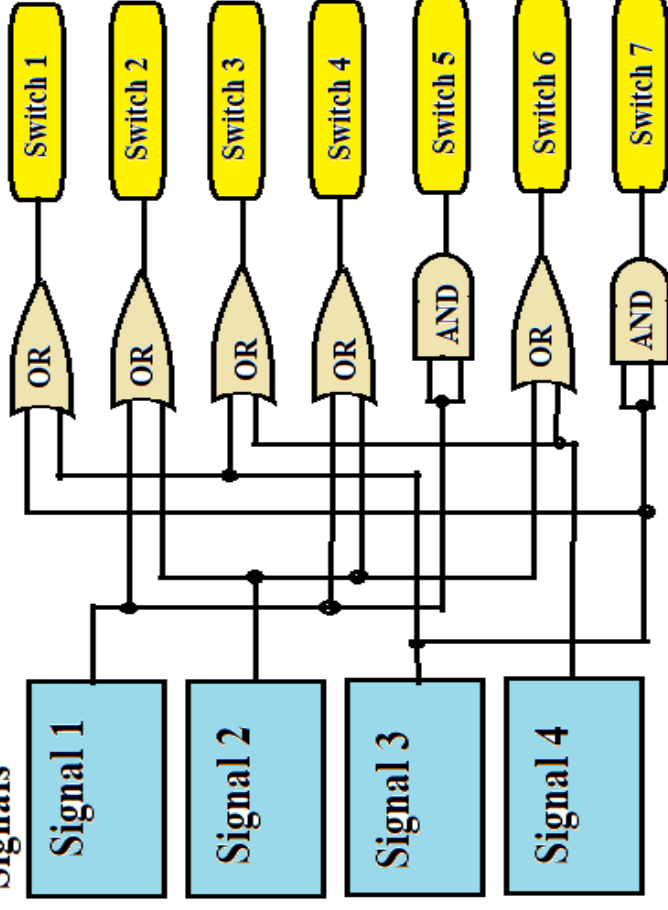
Optional Tank Signal Logic



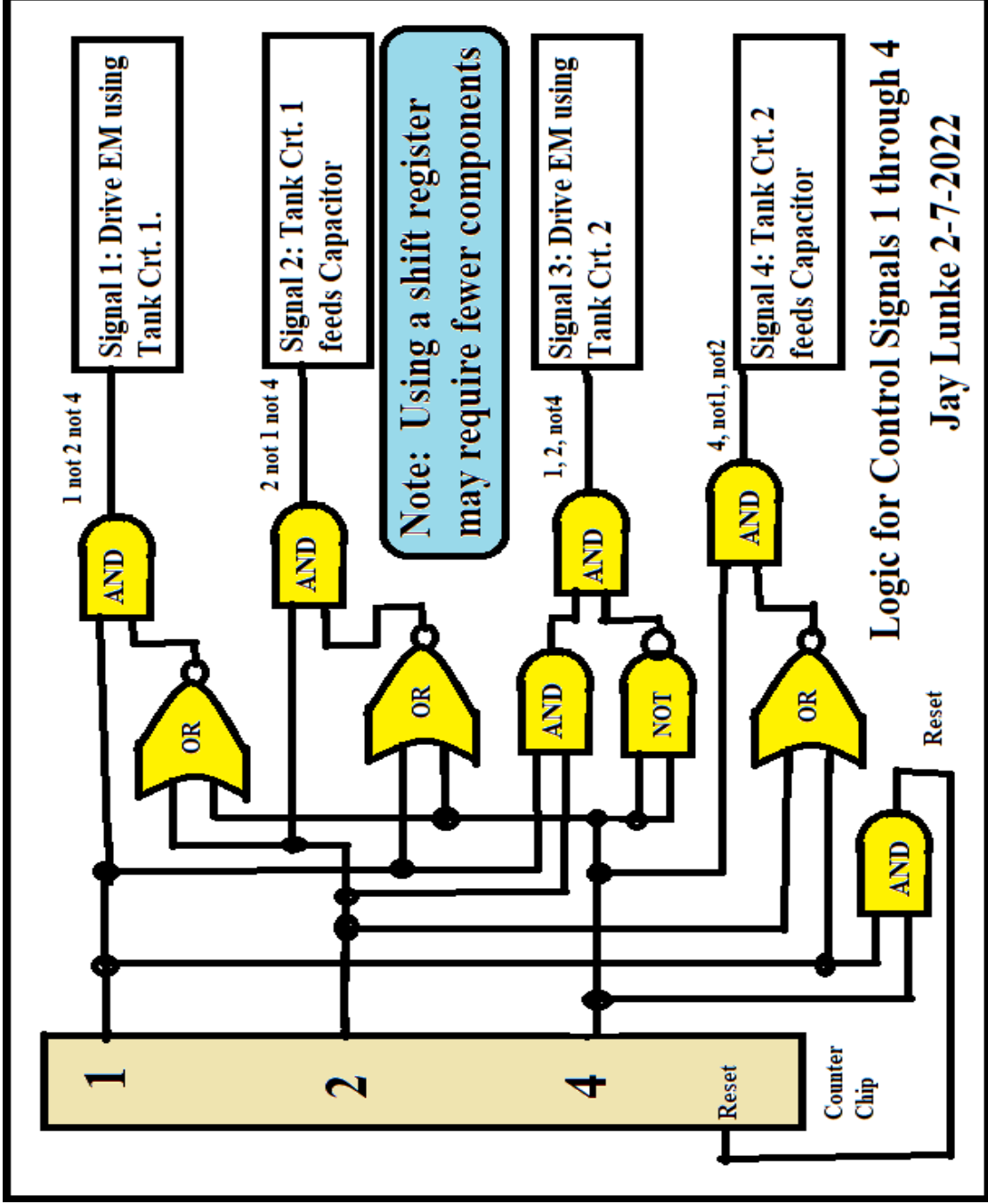
Jay Lunke 2-13-2022

Tank Signal to Switch Logic

Tank
Circuit
Signals



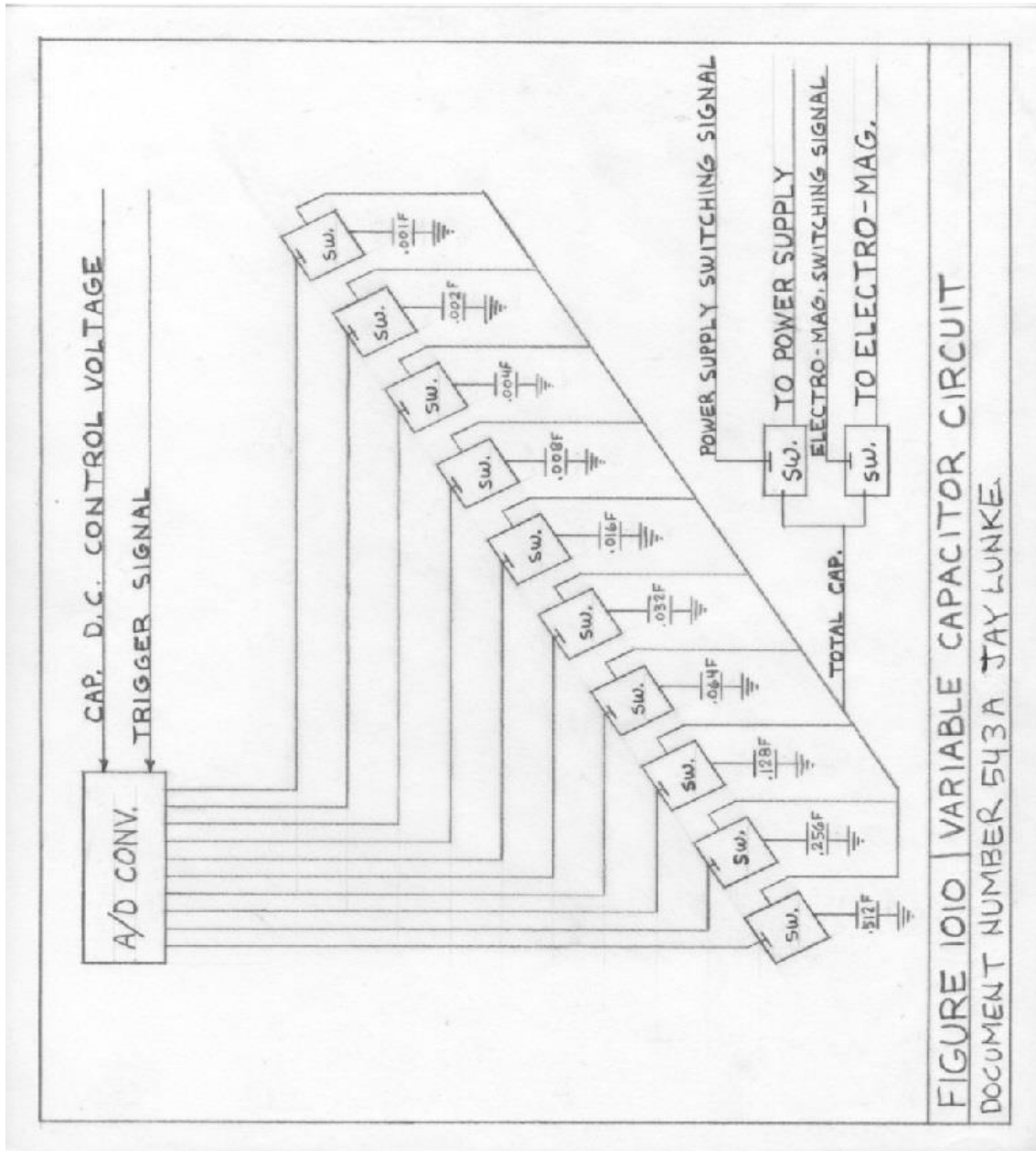
The tank circuit cycles from signal 1 through signal 4 over and over again. The power savings to drive the EM coil need to be evaluated with the power needed to operate the control circuit. Jay Lunke 2-8-2022



Logic for Control Signals 1 through 4

Jay Lunke 2-7-2022

One option for a variable capacitor for the tank circuit.



The problem with DC switching signal:

The DC drive signal is a square wave used in many motors. They are used in many applications that operate usually from a battery or DC power supply.

DC across a coil has a large current going through it because there is little to no back EMF when the DC signal is leveled off on top of the signal. At that point the current flow is determined by the resistance of the coil at this place of the DC switching signal.

An AC current produces a signal in the coil that reduces the current flow of the coil because of back EMF. This back EMF is a major player for the value of the induction of a coil. Producing a variable AC signal for motors that vary their speed is an expensive option to perform. Also, the frequency of the AC signal is not the optimal frequency of all electromechanical devices operating at a variety of load conditions. The fact is that the majority of DC motors live with the inefficiencies of the DC switching signal.

Problems with the length of the DC signal:

Each coil design has a different induction that requires a different length of a DC signal for the optimum efficiency in the circuit. Different coil inductions at a specific DC voltage across the coil requires a different amount of time for the coil to stabilize at the optimal condition of the circuit. The problem is once the coil is stabilized with the DC signal, it then loses its back EMF and the resistance of the wire is now the only thing limiting the current to flow. This is very inefficient. So, you want to cut the DC power before the coil reaches that length of time the coil starts to flatten out at the top of the DC signal. This flattening out of the signal is like the coil losing its inductance.

With my motor designs, each coil design has a unique optimal switching signal.

An optimum switching speed or frequency produces the maximum power performance with the best efficiency for the coil design. The coil inductance is the best parameter to determine this value. If the switching DC signal is operated longer than this optimal frequency, then the circuit pumps too much current in it. If the DC switching signal is too short, then the magnitude of the magnetic force is shortened. This reduces the power and efficiency of the circuit. The load on the output coil or device may also change the optimal frequency of the device.

Core Effect in coils:

As the coil is powered up, the core material develops a north and south pole in it that is stronger than a coil with an air gap. This produces a stronger magnetic force or field in the coil. Then when the DC signal is stopped. The core material still has this magnet force in the core material. The magnetic field soon reduces in strength at a rate similar to the rate the DC signal had to produce this field in the first place. This affect needs to be calculated into the switching speed of the device coil in order to compensate for this force in the circuit. The core material and construction have a large effect on the parameters of the coil or other magnetic device.

Recently some companies have claimed that the core material they are using in their generator designs have brought their systems to producing more electrical energy than the electrical energy to operate them. Most OU people have their eye on them for what they are doing.

Using the core discharging magnetic field:

Some people have decided to capture the energy that comes from the core material as the magnetic field is discharging.

There are many ways this can and have been done. Some designs dump the power into a battery. Some people dump the energy into a capacitor. Some people use it to energize other parts of the circuit. I have a theoretical circuit that captures it and reuses it again in the drive circuit in the next power cycle. This step, is very important in many magnetic circuit designs.

Energy cannot be created or lost. So instead of losing potential energy by dumping that energy to ground, then recover that energy so that it can be reused again. So recovered energy added to the efficient input energy circuit of the device minus the heat and other losses to the circuit of a proper motor design should be able to reach levels of $COP > 1$.

Even if the circuit does not reach a $COP > 1$, we need more efficient circuits to reduce our monthly electric bill.

Bunch the most efficient frequency signals into a packet:

The ideal function of a drive circuit is to send a packet of the optimal frequency to the device during the desired-on time of the device. The packet will be a lot more efficient than a solid DC signal during the desired-on time, the packet will be at most about 67% of power of the solid DC signal.

If you want a stronger force in the device, you could try raising the voltage of the DC signal by 33%. This may provide power similar to the constant DC pulse. Since the packets are created from one positive DC switching signal, the magnetic force will be of the same polarity with a changing magnitude of the magnetic pulse.

An AC signal changes polarity of the magnetic force. So, the packet of optimal DC pulses sent to the drive coil should be better than any AC circuit for most devices that drive “a coil with core” type of devices.

**Use both the most efficient drive signal packets
with energy recovery circuits in the design:**

My goal, along with many other people, is to end up with a $COP > 1$. So, by combining the most efficient power delivery scheme to the circuit along with recovering the electrical energy from the collapsing magnetic field in the coil or other device will go a long way of providing a highly efficient circuit. The hope is that with enough efficient design considerations, the COP could be > 1 .

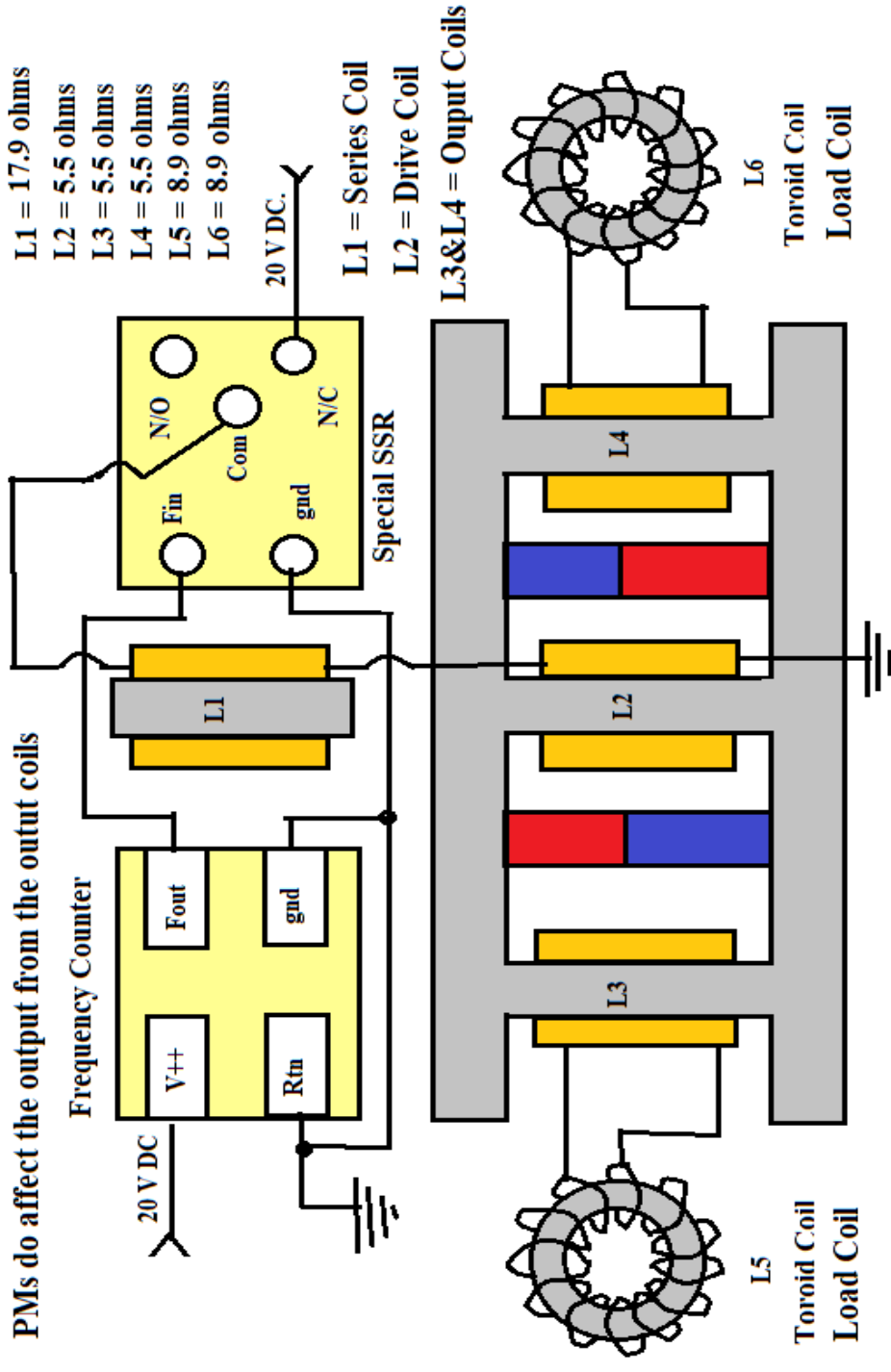
Coil choice in the design makes a big difference

Solenoid coils are used a lot in motor designs. A toroid coil is much more efficient than a straight coil with the same core material in them. The toroid coil focuses the magnetic field in a circle. Less wire is needed around its core material than a straight coil having the same core material to produce the same inductance.

In theory, the toroid configuration should produce more efficient devices if designed properly. The output coils I have been testing have been in a core loop with the drive coil. The next sketch has a setup you have more likely never seen before. When I get done with all of my testing with it, the results that I have not disclosed in this book will likely be added to one of my older books when I am working with motionless generators.

MSMEG Prototype testing Platform

PMs do affect the output from the output coils



All test results were under 1 watt for the full circuit here by adjusting the duty cycle of the freq. counter

With all of the frequency drive signals I subjected to the circuit; I could adjust the duty cycle that would bring the power coming from the 20 VDC power supply to less than one watt. With all of the components in the circuit, I realize that the most demanding power requirement has to be the power to generate the torque required to operate the motor assembly. Reducing the power required to operate the motor is the major area to address in achieving an over unity device.

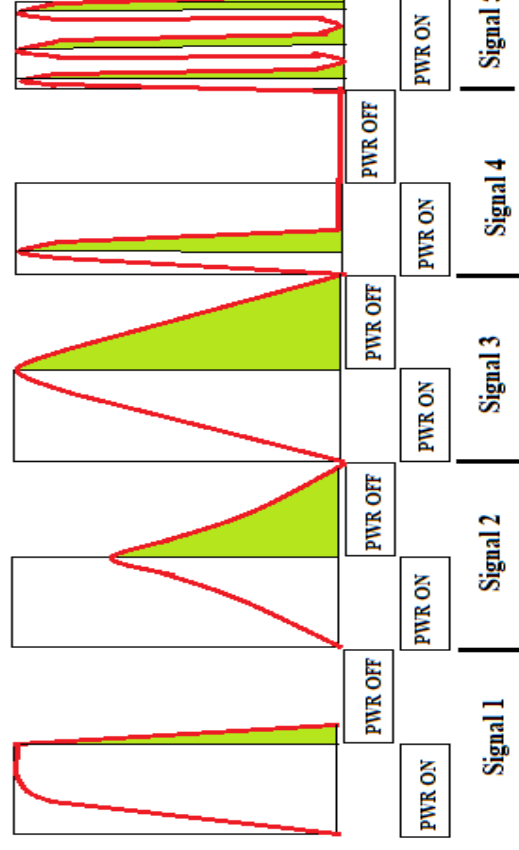
If you have a drive circuit driving a motor that has no load on it and the system is drawing more than a few milliamps in the system. Then something in the circuit or motor needs to be redesigned in order to produce an over unity device. This of course is for small systems. The larger the system, the greater the current draw will be. This is the goal for my motor designs.

The following two drawings show some important characteristics to DC switching signals I have learned about for my electromagnet devices.

But not only that, there is a need to eliminate the unnecessary power used in the motor drive circuit. Again, one should not happen without the other.

Energy Recovery From DC Switching Circuits:

Jay Lunke 11-23-2022



Potential Energy Recovery Points

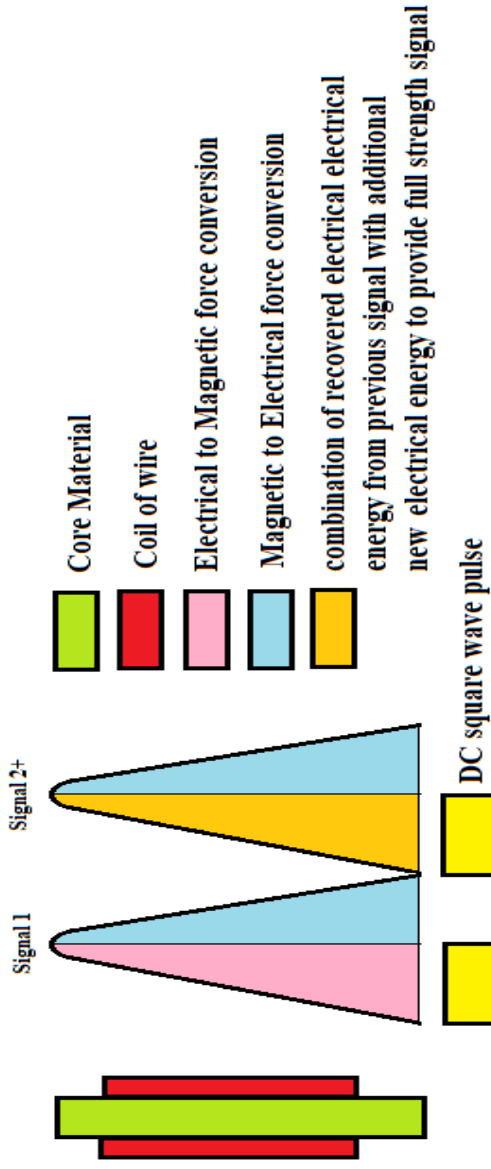
There are different ways people have captured this energy.

- 1.) Dumping the energy into a battery.
- 2.) Dumping the energy into a capacitor.
- 3.) Use the power for another part of the circuit.
- 4.) Change the signal pulses to a DC signal.

Note: When you use a DC switching circuit, make sure to account for the magnetic force that remains in the circuit until it has time to leave the circuit. The DC on time may need to be adjusted.

When a switching DC signal is used in some circuits with a core material in it. The core material builds up a magnetic force in the material. When the DC power is removed from the device, a current is developed in the wires around the core material. This is an opportunity to capture this energy.

Getting the most from your DC switching signal



Since energy can not be created from nothing and it can not be destroyed, then you want to use the energy you have for as long as you can. In electrical circuits, this would be conversion into heat though the resistance of the circuit. When you convert the electrical signal into a magnetic force. That magnetic force is used in different ways. One way is to produce torque onto another object. You want that torque to be the most efficient transfer into the secondary device in the mechanical circuit. When the DC power is turned off, the magnetic field in the core material will dissipate into the environment if you do not recapture that energy. This happens to be what happens most of the time. But to achieve overunity status, we need to capture that energy by converting it into an electrical signal as the magnetic field collapses.

By using the recovery electrical energy from the collapsing magnetic field in the core material and using that energy along with some new energy to provide the next DC pulse to the course if designed properly should be efficient enough to produce a circuit with a COP > 1 Jay Lunke 12-2-2022

The first drawing above shows a input square wave along with the flux output signal from the output coil. All of the input signals or drive signals were square wave signals. Lets look first at the first signal in the drawing. This signal occurs when the switching signal's frequency is lower than the optimal signal. As the signal gets to the point where it is flattening out at the top of the wave form, the current draw jumps way up because at this point it is only the resistance of the wire that is limiting the current flow. This is waisted energy.

With each of the signals in the sketch, the green portion of the wave form occurs when the drive signal is turned off. It is at this point that the magnitude of flux field and output signal reduces in size. It is during this time that there is an opportunity to recover electrical energy from the collapsing magnetic field in order to be used again in the device.

Notice that the green portion will still affect the other components in the device. So this needs to be accounted for in the timing of the signal and function of the device. For the best efficient design, you may need to turn off the drive power before the desired end of the segment of travel. This will prevent back torque on the motor assembly.

Signal two shows a signal that never reaches the desired signal level before the power is turned off. This occurs when the switching signal frequency is greater than the optimal signal. One way to compensate for this is to have a higher drive voltage in the system. When the drive signal frequency is too high, not only the output signal is smaller but also the flux in the motor is smaller at the same time.

In signal three the signal is optimal.

In signal four the optimal signal is sent to the device, but it does not provide a signal to perform the function that is needed for the device. The signal will limit the power used by the motor and at the same time greatly reducing the power of the motor assembly.

In Signal five we have a constant changing drive signal at the optimal frequency to the motor. We will spend more time later talking about this signal.

Addressing DC frequency packets:

Most core materials still have some magnetism in them after the power is switched off from a single DC power source. So, the best designs will cause the core material to be at a neutral of no magnetic field in the core material when the DC switching signal is turned off. The core material is the most important factor in determining the best way to take care of this problem

- 1.) Some people place a small or weak permanent magnet of the opposite polarity of the core material with the DC signal removed in order to neutralize the magnetic force in the circuit.
- 2.) Add a second DC voltage into the circuit. Let's say you have a 20 volts DC switching signal on the top of the coil. The bottom of the coil is grounded. When the 20v DC power is turned off to the circuit, then a small negative voltage is applied to the top of the coil. The value of the voltage would be small. It would be enough of a value to make sure the core material is discharged in the coil.

There are endless ways to address how to create and implement the frequency packets to the drive coil of the device you are working with.

- 1.) Having a computer or processor working with an I/O board allows for easy modification to the optimal frequency of the device under varying load conditions during the operation of the device. Programming knowledge for the hardware you select is required or you will need to get training to do this. But once you have the hardware and training, you can test different configurations a lot faster using this approach.
- 2.) For devices that have a constant load, having two 555 timer circuits could be used. One 555 timer circuit can be used to produce the optimal frequency for the drive coil. The second 555 timer can be used to create the length of time the device needs to be activated. Once this packet is created, it needs to be sent to a driver circuit that can handle the two different frequencies that is in the packet. The driver circuit needs to be able to handle the current required for driving the coil or other device in the design. There are several inexpensive boards on-line that can produce the frequencies needed in the circuit and even more circuits to drive the coil. Many of these circuits are inexpensive.

- 3.) Design and build an analog circuit to do this.
- 4.) Design and build a digital circuit to do this.

Looking at current designs: There may be many DC switching circuits that do not use all of the efficient techniques that could be used for DC switching signals. Could it be that if all of the efficiency steps for DC switching signals are taken on current devices, that a COP > 1 could occur in one of those designs?

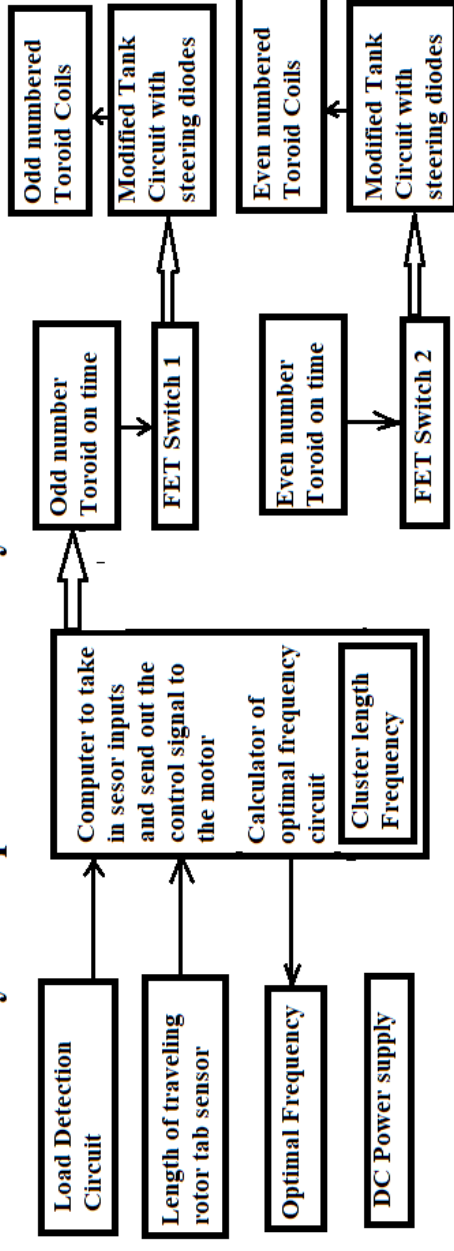
Just think how great it would be if people could purchase a current market device and just improve the DC switching circuit to get their over unity device!!!!!!!

Even if it was not to the level of OU, wouldn't more efficient devices help to lower the electric bill we pay each month. Think of how much the LED light bulbs have lowered our electric bill.

The following drawing shows a block diagram of designing and operating one of the new motor designs along with the driver and flux energy recovery circuits.

There are many ways you can accomplish these functions. It would be sad to build a free energy device and have it operated at a 99.9 percent efficiency rate because you have an 80% energy loss in your motor power delivery system.

Control Circuitry For Optimal Efficiency of Motor



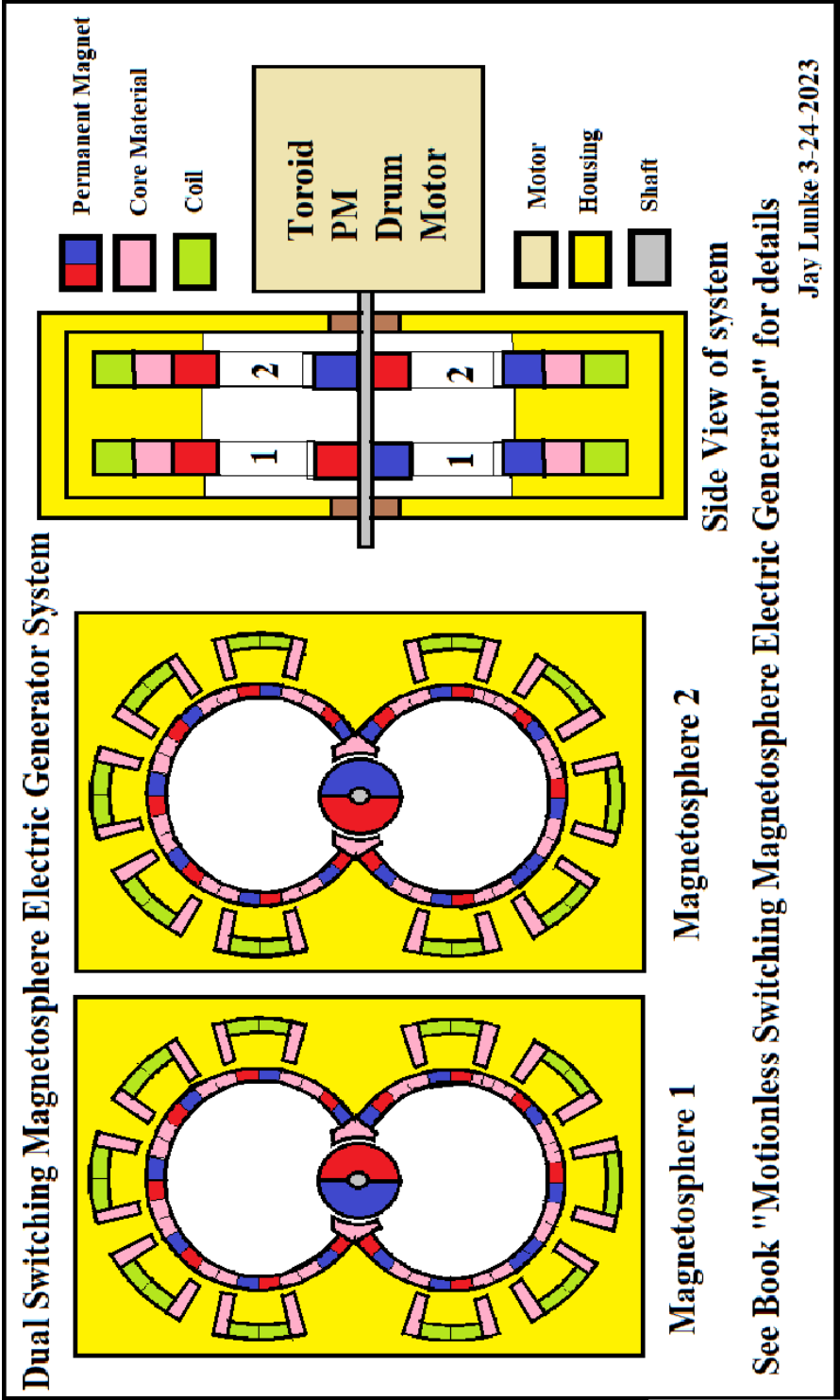
In order to get optimal frequency of the three layer PM toroid motor, a computer or processor will be needed in order to adjust things like the load and capacitor values needed for the modified tank circuits.

This motor and circuitry designs are an attempt to use the highest efficiencies from each of them. Some of my motor mechanical systems use both PM and toroid coils with the new "Three Layer Electromechanical System". The applied power in the coils are clusters of the optimal frequency during the desired on time. Recover and reuse the power from the collapsing magnetic fields in the circuit.

The book "A free gift that may be over unity or free energy to the world" has a lot more detailed information on some of these technologies.

Jay Lunke 9-4-2023

The System:



This drawing shows a system of using the toroid drum motor that I have developed in this book with two mechanical switching generators that I have designed in the book I wrote named "Motionless Switching Magnetosphere Electric Motor". This book is devoted to a new technology I have created in theory that generates electrical energy by alternating generator configurations of the generator from one large magnetosphere to several small Magnetosphere shapes over and over again by changing the magnetism of the core in the middle of the generator. Each time the conversions take place, the flux reroutes through several pickup coils in the generator.

In the book, I show designs that have 8 coils in each fin assembly of 16 fin assemblies making up the generator. So, the two disks in the drawing could be changed into two spheres having 236 output coils in the generator part of the system.

The reason for using two magnetosphere generators in the system is to smoothen out the torque on the shaft of the system. The way this happens is that as the permanent magnet on the shaft rotates past the north and south poles of the other generator magnets, the shaft will either have torque pulling the rotor magnet into alignment or repulsion to the alignment in the assemblies. As shown in the drawing, the rotor magnet polarity is different between magnetosphere 1 and magnetosphere 2. What this does is to balance out the torque on the shaft of the

system. As Magnetosphere 1 is having repulsion for alignment in that generator, Magnetosphere 2 will be having attraction for its alignment. As Magnetosphere 1 is being attracted for alignment, the Magnetosphere 2 is having repulsion. These forces should balance out.

In summarizing the theory of operation of this generator is as follows. As the core reroutes the flux path through the core, the amount of flux moving through each of the output coils changes. Then when the core magnet stops the flux flow through the core of the generator, more flux is rerouted through the output coils. It is the change in flux flow in each output coil that generates electrical energy in each coil. Since this is an indirect electrical power generation, the torque required to turn the core permanent magnets should be less than the electrical energy generated in a conventional generator.

So, at the system level, operating an over unity motor to an over unity generator should provide an over unity power system that has a lot more power output than the electrical energy to operate the system. This means the system can provide power for other devices without having to be connected to an external power source. It is the second power source which come from the atomic level that provides the power in magnets that the system is using. It is not only the magnetic power from the permanent magnets, but it is inclusive of the temporary magnets that are created in both the electromagnets and core material.

The core material being induced by permanent magnets

on and off again are a large contribution to this.

It also includes the electrical circuits that deliver efficient electrical power to the electrical mechanical devices with minimal losses from losses like wire resistance. It also includes recovering the magnetic force built up in the core material by converting it into electrical energy to be used again in the system.

Free Energy devices have so many areas that need to be addressed that have caused a lot of frustration in the past for so many people. Once these systems are designed and implemented there will be a great number of people who will have an interest in getting involved in adding to the development of these technologies.

It seems that the first people that get involved with any new technology are the ones that get the recognition when a lot of people have worked in bringing new technologies into the community. The best thing a person can do is to look toward what is the best thing they can do for all people.

Now the Bible says that it does no good for any person to gain the whole world and loose his own soul. So, what I want to do now is to let you know something that is more important to me than for all of my theories to be true. I cannot bring anything from this life into the next life, but I can share what I have experienced in it. So please read my testimony in the last chapter of this book.

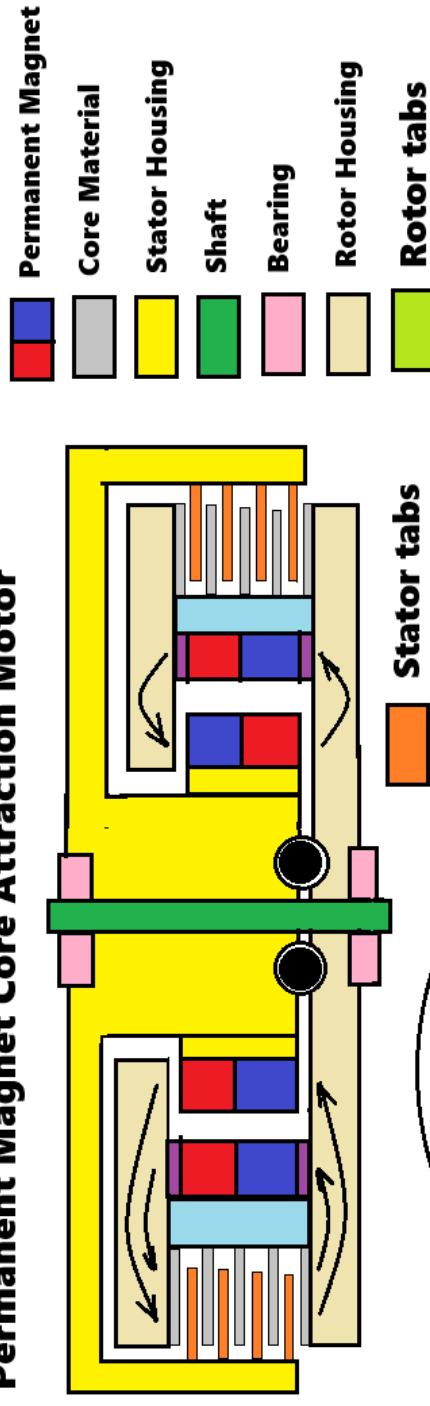
Permanent Magnet Core Material Active Switching Motor

I cannot help myself from exploring an all-mechanical movement motor that utilizes the internal magnetic power that permanent magnets have within themselves. If a permanent magnet is placed onto a piece of steel on the ceiling, there is a torque between the magnet and the steel that will keep that magnet there indefinitely.

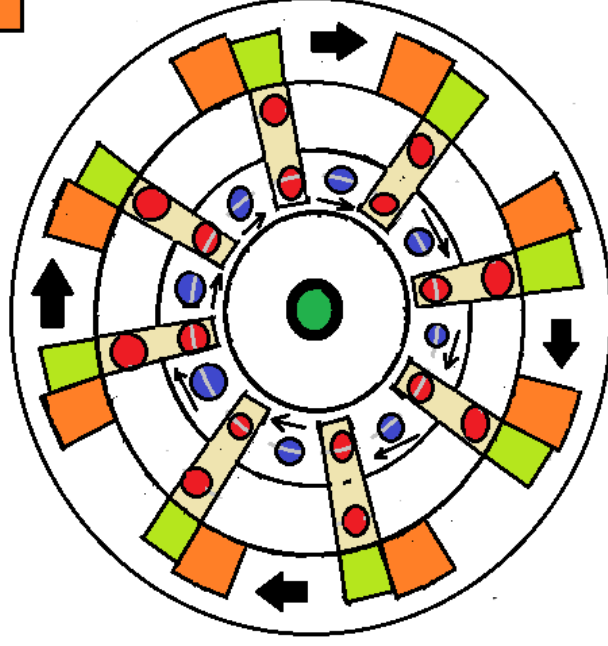
In theory, if permanent magnets by themselves are a power source, then there should be a way to design a motor that utilizes that energy to produce a free energy device without external electrical energy. This is another attempt on my part to give you something to look at and to think about.

There are actually three major areas that make this motor work. The first is a permanent switching magnet assembly. The second is a flux power source from a stationary permanent magnet. The third is a gap area that have stator and rotor tabs made out of core material. All three of these areas are important to the function of these motors.

Permanent Magnet Core Attraction Motor

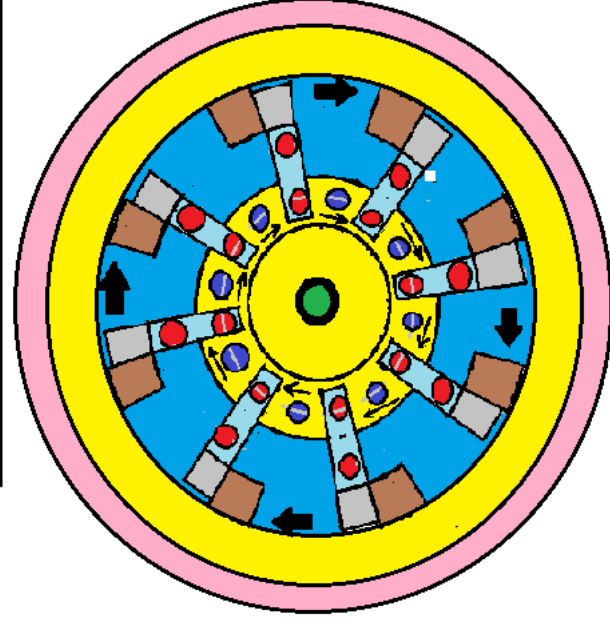
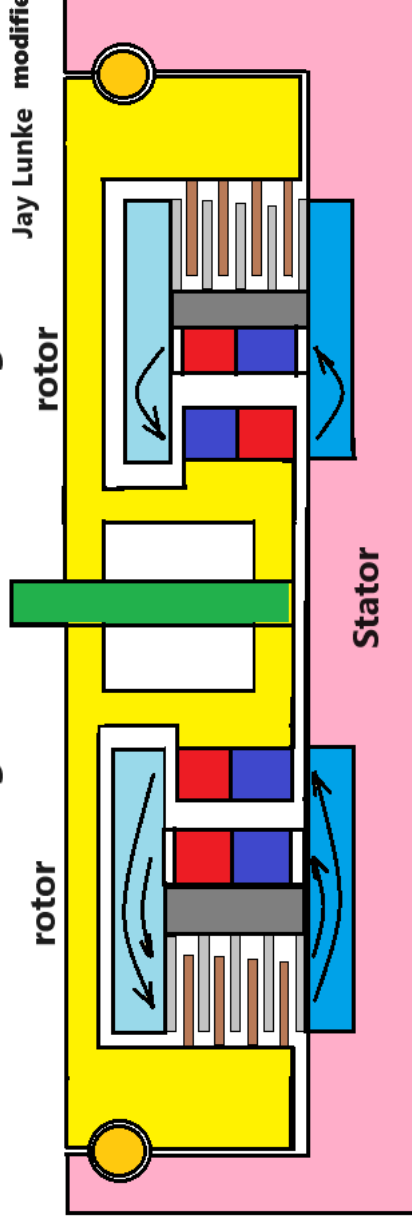


The idea is to create a motor that offsets the magnetic affects in the device for constant rotation. Permanent magnets have both attraction and repulsion that even out the to zero force for rotation of a motor device. Now a core material has attraction and no repulsion in a magnetic field, Core material has no magnetic characteristics outside a magnetic field. This device is an attempt to have the permanent magnets changing the gap magnetic field during the rotation. The core tabs are placed in a position to be attracted into the gap only when the permanent magnets are in position to do so.



Quantum Magnetic Flow Switching Motor

Jay Lunke modified 4-15-2024



- Permanent Magnet
- Core Material
- Stator Housing
- Shaft
- Bearing
- Rotor Housing
- Rotor tabs
- Stator tabs

This motor in theory reroutes the magnetic flux flow at the quantum level with the permanent magnets movement in the motor. With this movement the gap area with the stator and rotor tab assemblies will turn the flux on and off to generate movement in the motor. The magnetic switching attraction and repulsion forces need to cancel each other out for the torque of the gap area to turn the rotor assembly.

This motor was not found in the early printing of this book. It is my latest design. In this motor I have a smaller circular assembly in a larger circular assembly. The small circular assembly I call the rotor assembly. The larger circular assembly I call the stator assembly.

The objective of this motor drawing is to have continual rotation between the stator and rotor assembly after the motor is spun up to speed. After it is spun up to speed, it will operate with no electrical input to the motor.

There are several sub-assemblies that repeat themselves over and over again in the motor in order to rotate the drive shaft in the motor. There is a permanent magnet in the middle of each subassembly that has two optional paths for the flux to flow through one of them. There is a bar of core material on the top and bottom of this magnet allowing the flux a route to flow through. On one side of these bars is a switching area for permanent magnets to slide through that have the polarity of these magnets to flip between the positive and negative polarity in the sub-assemblies. The other side of the core bar assemblies, has a flux gap area.

In the two drawings above, the functions of the stator and rotor are switched between the two drawings. In the diagrams I show above, there is a bar that has one permanent magnet attached to it with a gap with core material tabs in it. The other end of the bar is the gap area for switching magnets to slide through it.

This gap area has twice as many permanent magnets than the stationary magnets that rotate between the top and bottom core bars of the assembly.

First a switching magnet with the north pole toward the top bar rotates through this gap area. Then a magnet with the south pole toward the top bar rotates through this area. What this switching does is to reroute the flux flow either into the tab gap area or out of the tab gap area of the bar section of the motor operation.

Now the switching magnets moving through the gap area between the top and bottom bars of the motor assembly perform two functions.

First, when the switching magnet moves toward the switching gap, a positive torque occurs when coming into alignment with the bar's gap area. Then as the switching magnet moves past the bar's gap area, the torque changes its direction when leaving the gap area. These two forces

in theory should balance out to zero. Zero is great because then the motor movement becomes depended on what happens in the gap area of the motor assembly.

The second function is to change the flux flow through the tab gap area between the core material bars. When the polarity of the switching magnet and the stationary magnet are in the same direction, then the flux from both magnets will flow through the tab gap area of the motor assembly. This is doubling the flux in the tab gap area.

Now if the polarity of the stationary and switching magnets are different than each other, then the flux will flow through the stationary magnet into the switching magnet followed back to the stationary magnet again. This process staves the flux flow in the tab gap area.

I only have a bar in every other potential area of the rotor assembly. This prevents an adjacent bar, along with its components, from creating a reverse torque in the gap areas of the motor. I do not want that to happen. This is why there are twice as many switching magnets as there are permanent magnets.

The diagram shows a motor with eight sub-assemblies with a bar made of core material on top of the stationary magnet. On each side of the bar are two gap spaces. One for the switching magnets and the other for the rotor and stator tab torque gap area.

The alternating of switching magnets into and out of the switching gap area will cause the alternating between having double torque and one of having no torque in the tab gap area.

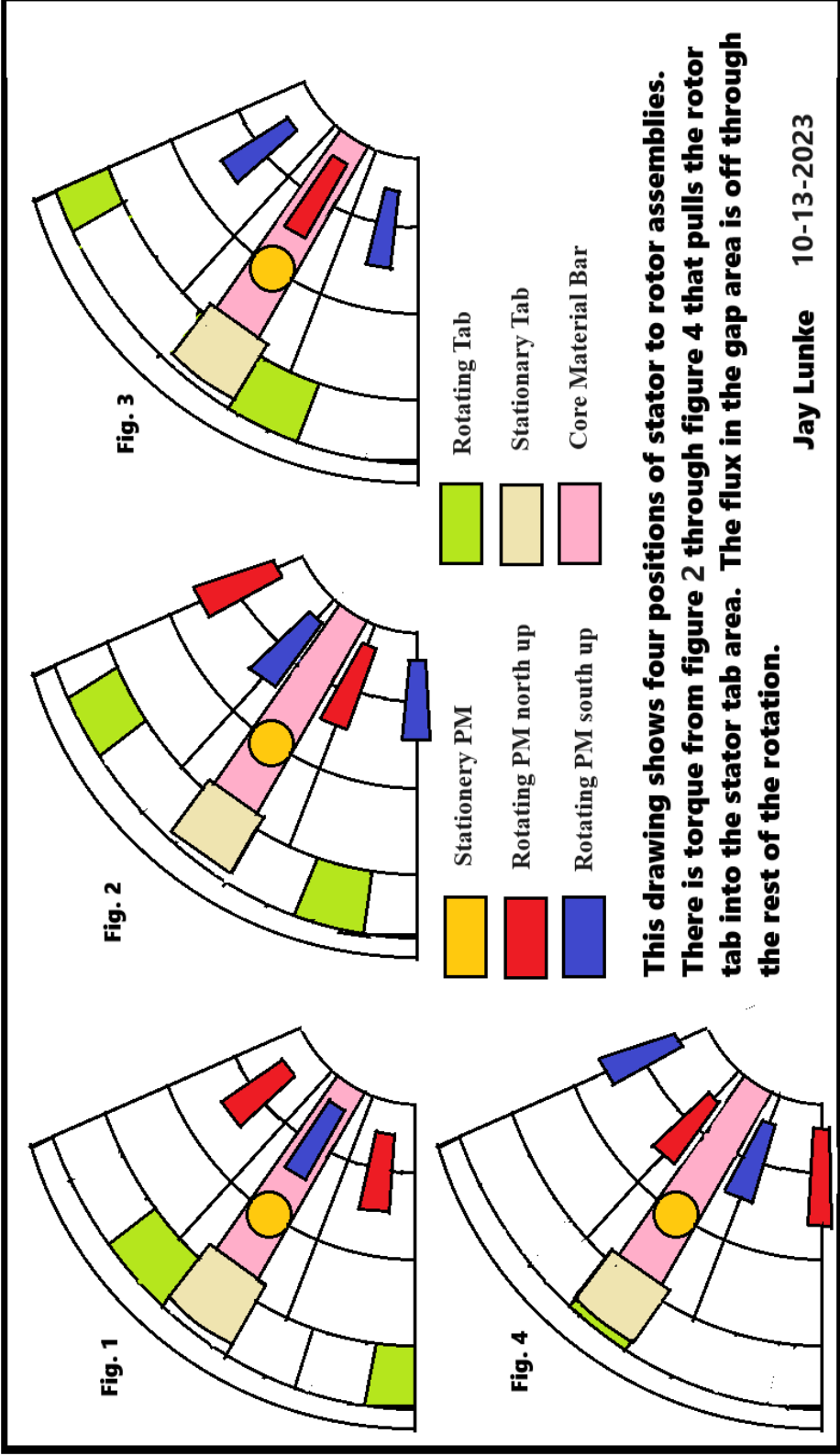
This motor design has torque on and off for about 50% of the rotation. With this motor design, the motor will need to be started in order to keep rotating. There are different engineering ways to get away from this situation as shown in some of the other design options coming up in this chapter. The motor design I like the best is the drawings I will show with a motor that has a mirror image of this motor on the bottom side of the motor. The bottom section can be designed with a 50% torque offset with the top section of the motor so that the new motor will produce a forward torque through 360 degrees of its rotation.

These latest motors also take the advantage of leverage in the design. The permanent magnet switching is

performed closer to the motor shaft. The torque to rotate the motor is generated in the tab gap area which is farther away from the shaft of the motor. Being farther away from the shaft means more torque for turning the shaft.

In the motor designs, I show the permanent magnets separated by either an air gap or an insulation material. The flux going into the core material from the stationary magnet should be the same as the flux from the switching magnet. This is done in order to optimize the two flux states in the tab gap area of the motor. With that being said, you want this gap between each tab to be as small as possible so that the level of flux flow will be greater in the core material.

The tab gap area has both stator tabs and rotor tabs in it in order to amplify the torque of the motor's rotation from a constant flux flow through this gap area. This amplification will be the same as the toroid motors I have written about in this book. This amplification along with doubling the torque in the tab gap area from the permanent magnet switching activity with the mechanical advantage of using leverage in the switching activity of the motor design all contribute to the theory that this motor design is a good candidate for an over unity or free energy motor design.



In the drawing above, I have the switching magnets moving along with showing the location of the tab assemblies during the motor's rotation. I show what happens in one section of the motor at four different time segments.

The middle stationary permanent magnet is connected not only to the top and bottom bar assemblies, but it also has an area for the switching magnet to slide through on one end of the bar assembly and on the other side of the bar assemblies it has alternating tabs on it that are in the gap area.

Without the switching magnets, the gap area would have a constant flux flow through the gap area. What the switching magnet does is to either double the flux flow in the gap area or it starves the flux in the gap area. It does this by rerouting the flow of the stationary magnet in the assembly.

When the pole of the switching magnet is in the same polarity as the stationary permanent magnet, then most of the flux should flow through the gap area. When the polarity of the switching magnet is opposite of the stationary magnet, then the two magnets will create a short flux flow circuit between the two magnets which will starve the flux flow in the gap area.

The core material in these motor designs have two states. The first state is core material by itself has no magnetic characteristics in it so that it does not react to other core materials. The second is that it takes on some magnetic characteristics when it comes into a magnetic field.

The major characteristic in the tab gap area is one of attraction. The core material in the rotor tab area wants to align itself with the stator core materials of the assembly when the flux is applied to this area. In this motor design, that power is the torque that is generated from the flux flow created by the magnet's orientation and position.

Now if the magnetic field stays constant in the gap area, then the forward attraction will bring the rotor core material into alignment with the stator core material in

the gap area, If the power remains in the gap area, the same force will have torque that tries to bring the rotor core back into alignment with each other. I had to implement a way to turn on and off the flux in the gap area of the device.

I implemented a permanent magnet switching scheme. By implementing a flux switching scheme I am able to turn on the flux in the gap area to pull the rotor tabs in between the stator tabs. This creates forward torque in the motor. Then I remove the flux using the magnetic switch so that there is no reverse torque on the rotor assembly.

The permanent magnetic switch operates very similar to flux rerouting devices from several other engineers working with motors and motionless generators.

Switching Options

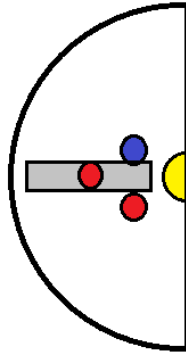


Figure 1

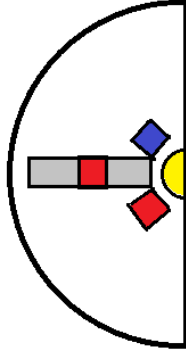


Figure 2

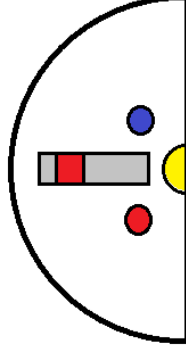


Figure 3

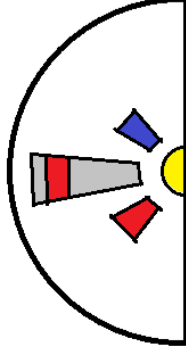


Figure 4

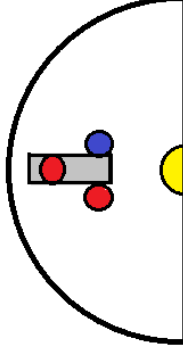


Figure 5

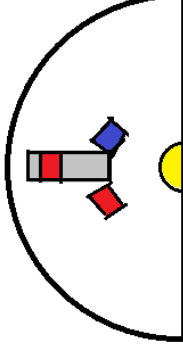


Figure 6

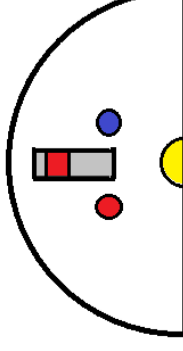


Figure 7

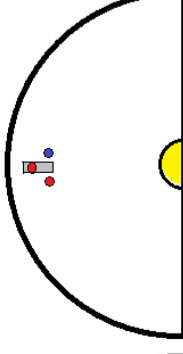


Figure 8

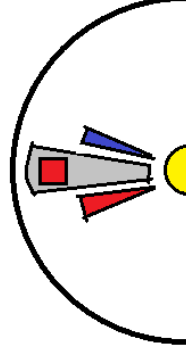


Figure 9

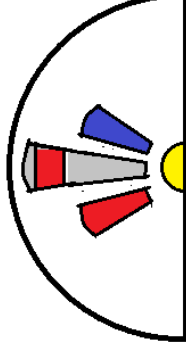


Figure 10

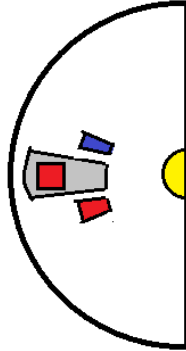


Figure 11

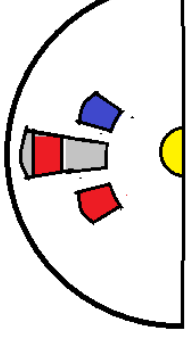


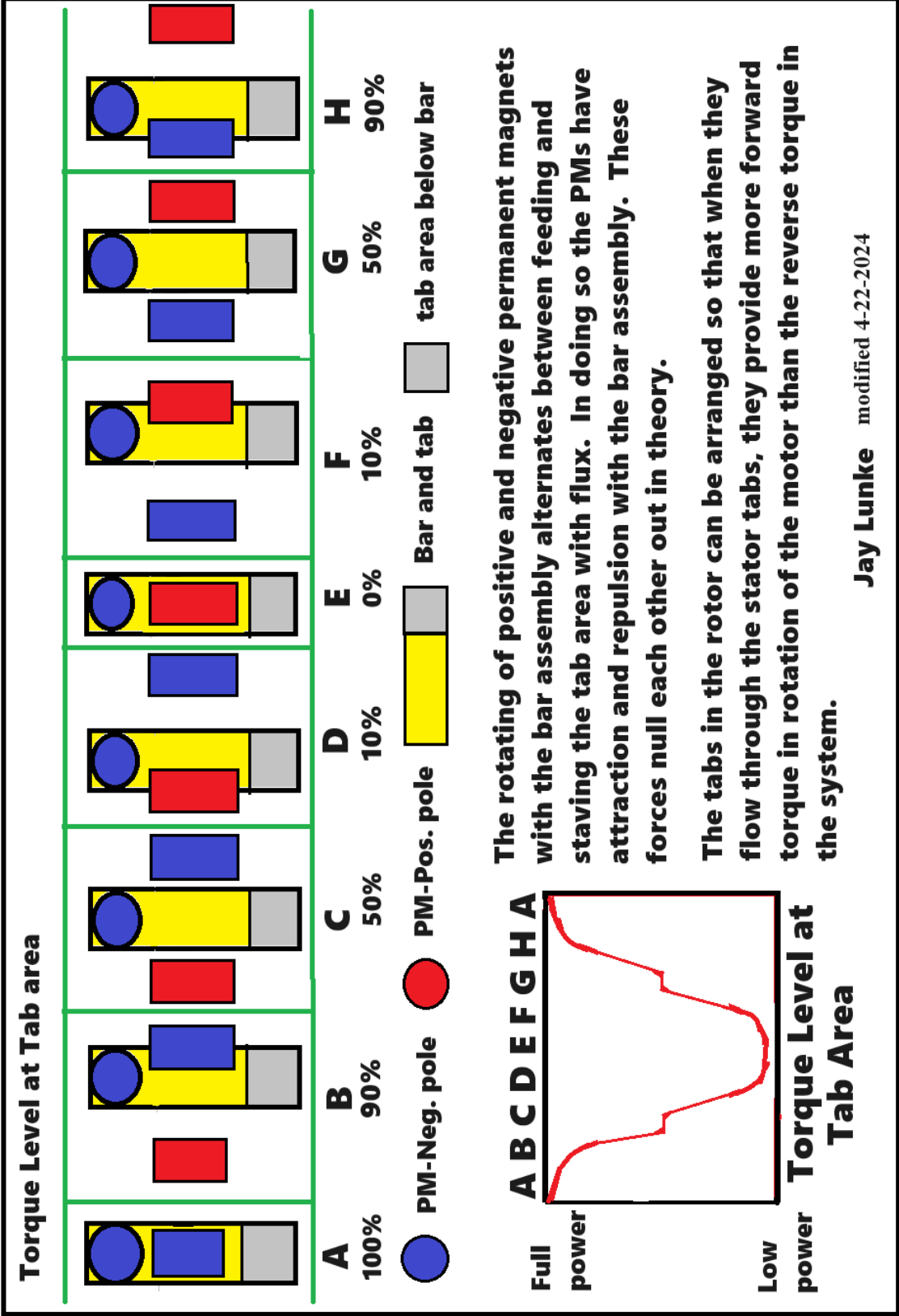
Figure 12

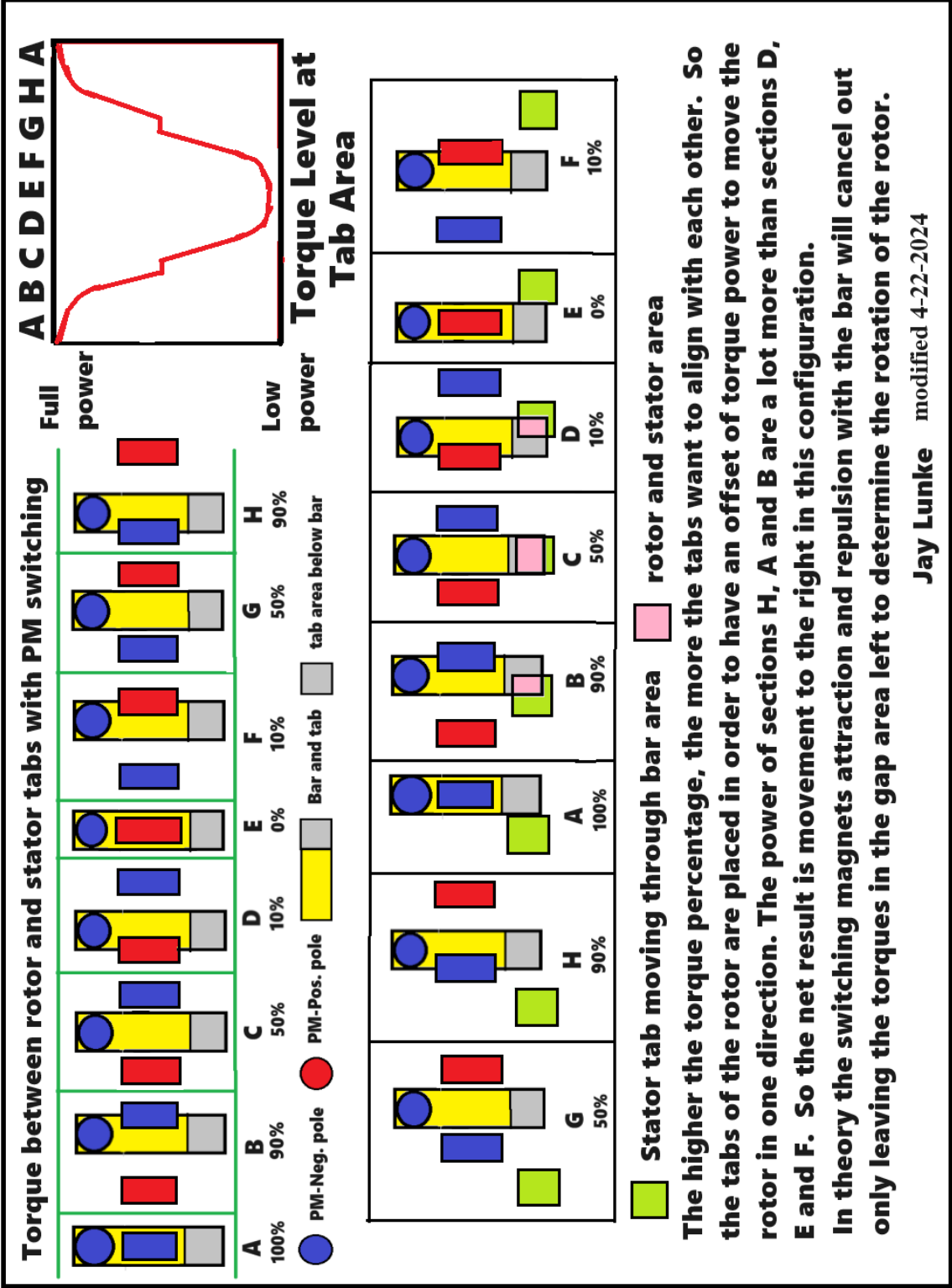
This drawing shows some of the magnet configurations people might use in their motor designs. The magnet layout will be different for linear motor designs and applications.

If the permanent magnet leaving the bar of core material is flush with this bar when the entering permanent magnet is coming into the bar, then there is a flux path between the two switching permanent magnets that generates a loss for the motor assembly. So, it is best if the exiting permanent magnet has a little distance between itself and the bar before the incoming switching magnets comes into contact with the bar.

The shape of the switching magnets makes a difference in the motor's performance as well. A round shape is not as good as a square shape. A square shape is not as good as a custom shape that brings as much of the magnet into the core bar as the shape of the permanent magnet leaving the core bar area.

The location of the switching magnets in relationship with the tab gap and motor shaft will affect the leverage in each assembly that changes the motors overall torque.





The first of the two drawings you have just looked at shows you how the switching magnets generates a changing amount of flux in the tab gap area. This flux flow directly changes the torque between the rotor and stator tabs of this motor.

The second drawing goes one step farther. It takes advantage of the changes of torque in the gap area and places the rotor tabs into the optimum position as they rotate through the stator tabs in order to create an offset of torque that causes the rotor to rotate through the stator tabs without additional power.

The next drawing helps me to understand how offsetting the rotor tabs of core material can be optimized for maximizing the forward torque verses the reverse torque in the motor assembly. Remember that the switching magnets forward torque and reverse torque will cancel each other out. So, the offset of the torque in the gap area is what makes this motor design so special.

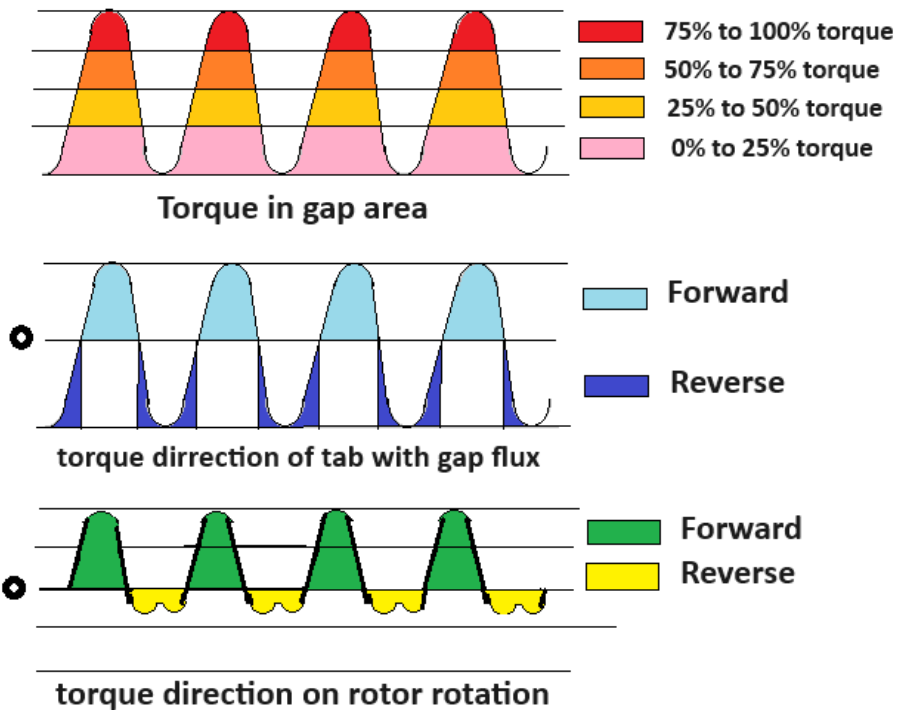
There are two major things that affect the torque between the rotor and the stator is first the amount of flux flowing through the gap area and second, the position of the rotor tabs in the gap are.

The flux in the gap area looks similar to a sign wave where the torque moves from flux from two permanent magnets moving toward no flux. The torque cycles keep cycling between the two conditions in the sign wave of a flux wave.

The position of the rotor tab will always try to center itself with the core material of the toroid core material. The way to offset the torque between the rotor and stator assembly is to have the most torque in the gap area when the rotor tab has forward torque in the motor assembly. Then to have the least torque in the gap area when the flux is at its lowest value in the torque area.

Gap area flux affect on rotor rotation

Jay Lunke 9-9-2024



With most permanent magnet motor designs there is an offset between the forward torque on the rotor with the reverse torque on the rotor assembly. In my all magnetic motor designs are working toward the same goal but in a different method or technology to do that. I use permanent magnets that switch the path of the flux flow. The forward and reverse torque should cancel each other out so that there is no rotor movement from this switching action. While the switching magnets come move between the upper and lower bar assemblies, the flux reroutes in the gap area. It is the offsets in the tab hardware with the cycling of the flux in the gap area that in theory can be designed to produce forward movement in the motor assembly.

Because of this there has to be implemented one of the designs options to operate this motor.

One option is to bring the motor up to speed by an external motor.

Another option is to offset the number of rotor sub-assemblies compared to the stator assemblies.

The next group of drawings is a more complete motor design that does not require to be spun up to speed because the top half of the motor is out of phase with the torque in the bottom half of the motor in order to keep forward torque on the motor through the full 360 degrees of rotation. This motor should have twice the power over the motor that requires a start-up motor. The cost will be more to build this motor. The application will make the difference in which motor that will be picked to use.

Some of the last drawings below make it more clear of what parts belong to the stator and which parts belong to the rotor assembly.

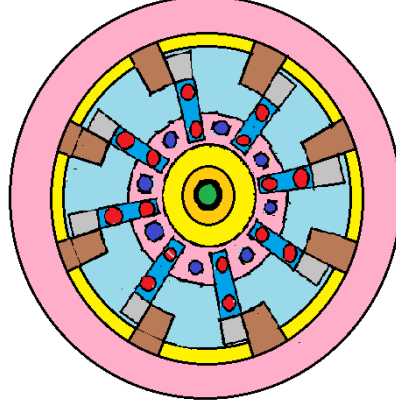
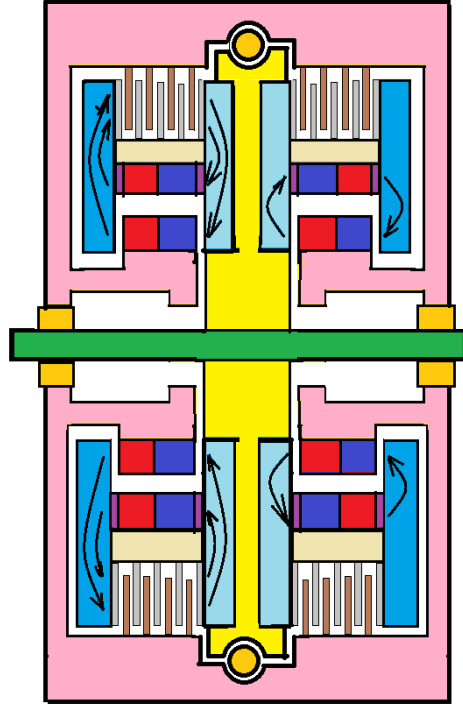
There are many options in the way the stator and rotor assemblies can be designed and built.

One of the things that are very important is that there is as little wiggle room between the rotor and stator assembly. The smaller the wiggle room, the smaller the air gaps can be between the rotor and stator assemblies. The smaller the air gaps are, the more torque will be developed in the motor assembly.

The value of having a permanent magnet motor available to purchase on the market has been written about by many people. They would change the world. That is why I added this chapter into the motor, because if it does work, the world would be a different place in the years to come. If it does not work, then there is enough engineering work done in the other chapters that should produce an over unity system.

Because of my age, I will not be able to prove this technology by building and testing all of my motor designs.

Quantum Magnetic Flux Switching Motor Optional Configurations Rev 3

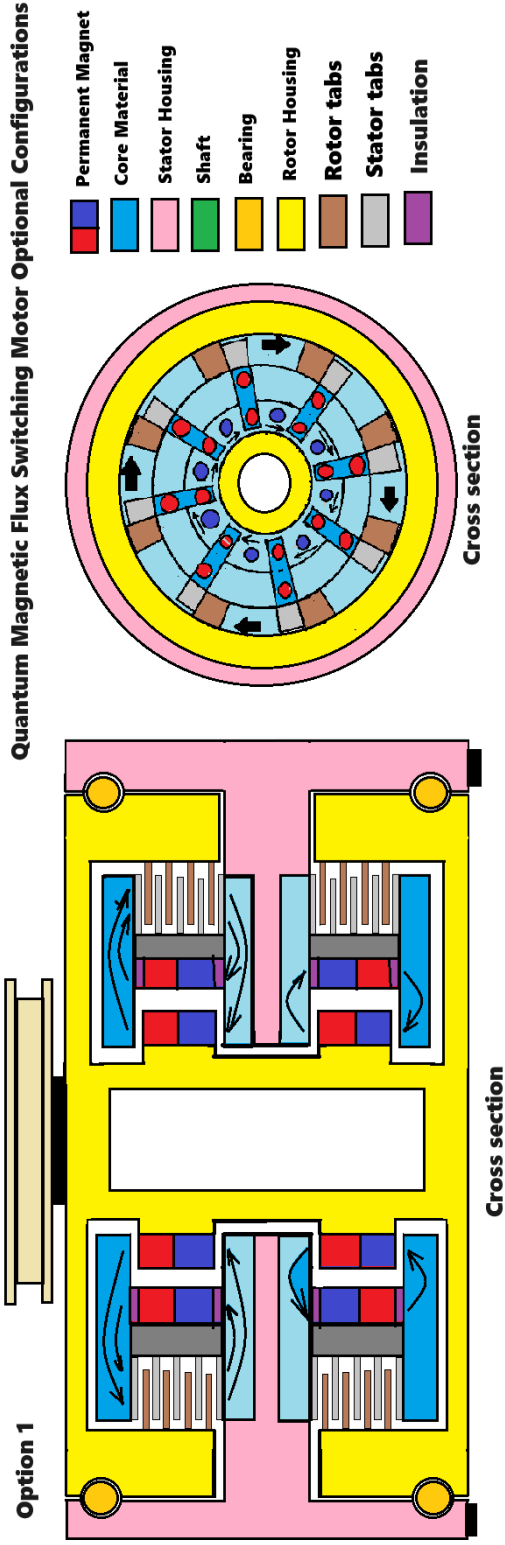


Cross section

	Permanent Magnet
	Core Material
	Stator Housing
	Shaft
	Bearing
	Rotor Housing
	Rotor tabs
	Stator tabs
	Insulation

This option of Quantum Magnetic Flux Switching Motor Has three bearing assemblies in order to provide tighter tolerances and stability in the rotor and stator components of the motor assembly. This option will alternate having forward torque at the tab area of the motor between the top and bottom parts of the motor. The motor should not require a separate motor to bring it up to speed. There are two major area's of the motor design. First is the switching area between the two permanent magnets in each sub-assemblies. This area has two modes that alternate in function. The first is to feed flux into the gap area and the second is to starve flux in the gap area. There is an alternating torque from the rotating permanent magnets in these assemblies that in theory cancel each other out during the switching process. The second area of motor design is the tab area. This area has the interaction between the stator and rotor and tab assemblies. The switching process has already set up two conditions for this area. One of lots of flux and the second of little to no flux. This is the conditions we want during the rotation of the sub-assembly so that the tab's are located in the proper alignment to provide forward torque to the motor when needed and no reverse torque in the sub-assembly when not wanted. The tab area itself does not create a back EMF that clogs the movement in the motor. With this motor design, the top part of the motor alternates with the bottom part of the motor in order to have continuous forward torque that keeps the motor functional.

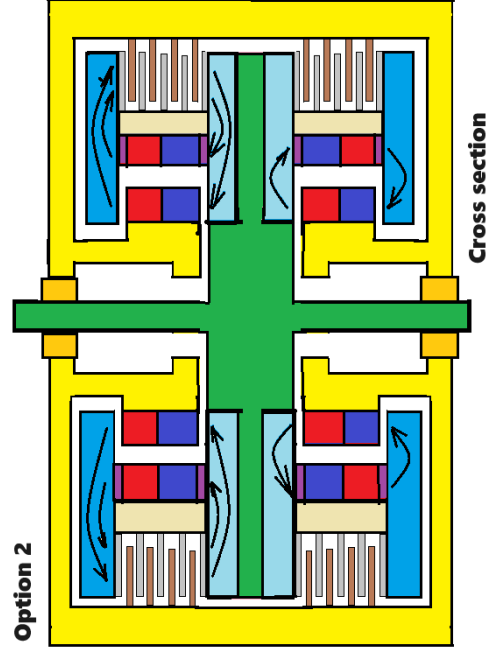
Quantum Magnetic Flux Switching Motor Optional Configurations



Option 1 provides tighter tolerances of the tabs from both rotor and stator assemblies providing a smaller spacing in the gap area that in turn provides more torque in the motor assembly.

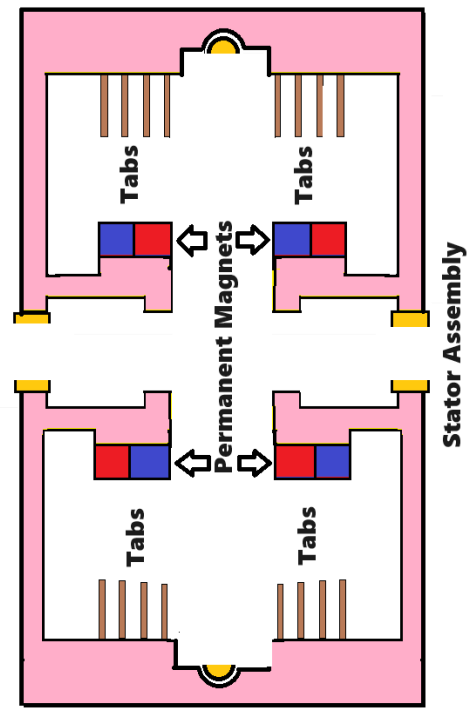
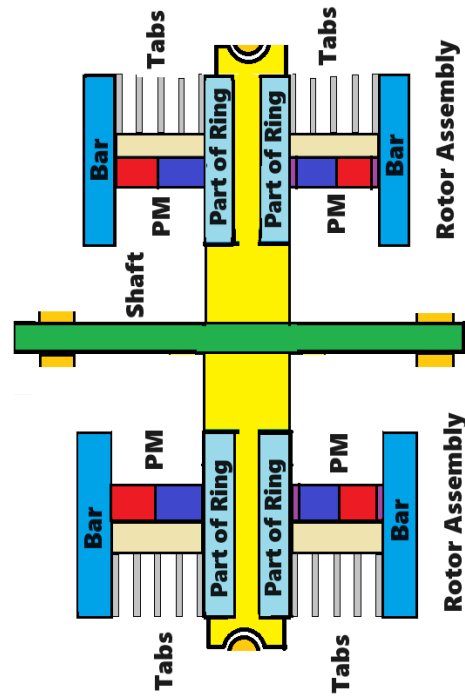
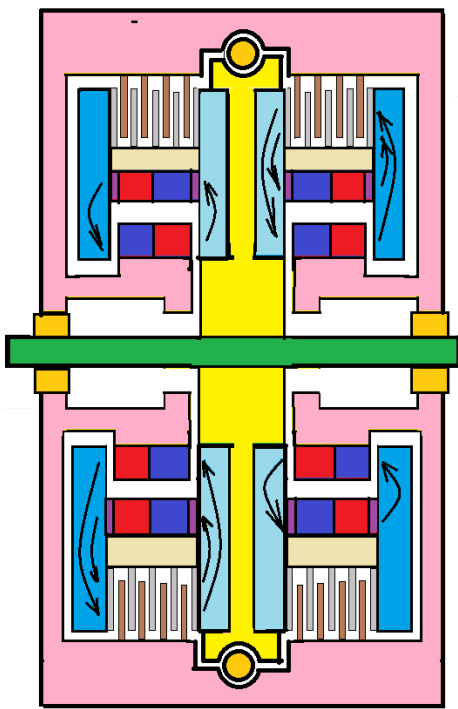
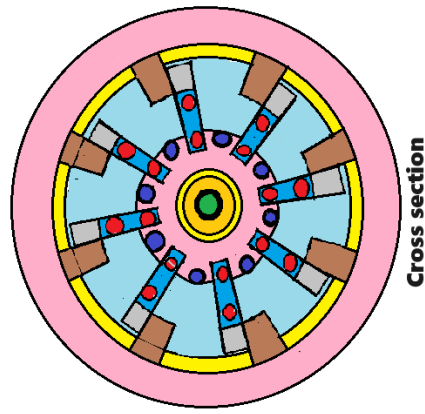
Option 2 is more conventional using a shaft for the motor. Both options 1 and 2 provide rotation of the motor using only the forces of the flux flowing from the permanent magnets in the motor assembly.

The rotation of the permanent magnets in the motor creates two functions. Function 1 is for the flux to flow through a pair of permanent magnets which starves flux flow at the tab location of the sub-assembly. Function 2 causes the flux from the paired magnets through the tab area of the sub-assembly. The result is that the arrangement of the rotor and stator tabs will cause a forward torque to continue movement in the motor assembly.



Quantum Magnetic Flux Switching Motor Optional Configuration
Rev 3

- Permanent Magnet
- Bar 16 each
- Stator Housing
- Shaft
- Bearing
- Rotor Housing
- Rotor tabs
- Stator tabs
- Large Ring 2 each
- Insulation



Jay's Testimony:

Nothingness, this was my first recollection in life of wondering about spiritual life. I was not in school yet and I remember lying in bed trying to think of what it would be like to die and then just not have any consciousness at all. I felt like I was being robbed a life when I had not even lived one yet. I thought that maybe if I never grow up then I will never have to think about nothingness. As I got older still a preschooler, I remember going to church 3 blocks from our house. I learned about heaven and hell in church. I now had a new and greater fear, this was the fear of living forever and ever in hell. What was to happen to me if forever and ever without end I would be burning and burning in agony moment by moment forever and ever? I remember thinking of the question "would the pain be any less after one million years of burning. I wondered if the pain would be so great that I could not use my mind to think of anything but the burning pain. Then I thought of what would hell be like as far as the interactions with other people. Would I be isolated from other people? Would I only have me for eternity? Would I be all alone in great pain hating myself. The thought brought me to a cold sweat. Back then, I had a hard time falling asleep. Back then, in order to sleep, I had to stop my active thought life from going through these patterns

and thoughts. I had to void my mind from thinking of anything. This was hard to do at times but when it worked, I would find myself waking up the next morning.

Things were a little unstable for me as I was growing up. My mother was married three times. We moved around a lot. After my mother divorced my father at the age of 12, I began seeing my father only during visitation rights and summer vacations. It was not that bad because I got to spend a lot of time with my father during those times. I loved my father. After my mother started living with her boyfriend we moved around a lot. It was hard for me to establish relationships with other people. My father did not live a long time. He died shortly after I had finished high school. It was hard for me to adjust to his death. His death did create a lot of changes in my life. I moved from the Twin Cities to Duluth to live with my brother John. I also attended vocational school to become an Electronic Technician.

Earlier in my life when my mother owned a bar on the Indian reservation, I found out that life was easy. It was not hard to please my mother when there were very few rules that I had to follow. There was very little I could do wrong in the eyes of my mother. Our mother would ask us to steal corn from one of the area farmers so that we had something to eat. She also asked us to steal cigarettes from a vending machine for her boyfriend who smoked. When looking back on my life back then, I can see how much better we had it than many other people in life today. I am so thankful that I did not grow up in an

abusive home. My mother did love me when I was growing up. I was always fed and I always had fun things to do. We did not live in the bar more than one year and we moved around again. I went to a different school every year from the 6th through 12th grade. It was hard for me to make long- or short-term relationships when we were moving around so much.

My twin brother John was my closest friend while I was growing up. John had an outgoing personality and could talk to strangers as if he had known them for many years. John always had ideas of new things to do. One of the things John and I did was to fly a kite from a rowboat on a calm day. I would be rowing the boat as fast as I could as my brother would be yelling at me, faster Jay, faster as he was letting out more and more string until the kite got high enough into the air where it would finally reach a breeze. Yes, I miss those carefree days of old.

As far as my spiritual food goes, my siblings and I would go to church off and on in different places. In church I would repent of my sins. I would do this because I still had sins in my life. I did not have assurance of salvation in my life. When I was living on the Indian reservation, it was hard to feel like I was a Christian when I was going through periods of my life when I did not go to church. Was I a Christian? For me at this time of my life, I was the target for receiving evangelism. The funny thing is, I do not remember people giving me a gospel track or inviting me to their church at this time of my life. Later we moved to the Twin Cities when I was in junior high school, I do

remember a pastor coming over to my sister, my brother and me and asking us to come to his church. We went to church there. I do remember making a few altar calls in that church as well. But we stopped going to that church for some reason that I cannot remember. We started going to a small church closer to our home. We would put on our best clothes and go to church there. One day the pastor's son stopped John and I outside the church and asked if he could talk to us on the church lawn. He told us that we should wear clothing that was more respectful of the Lord's house. We explained to him that we were wearing the best clothing we had. He told us that he would be glad to find us clothing to wear to his church. I think that this was the last day that we went to a worship service in that church. It was a good thing that I knew more about the character of God at that point of my life because I really felt hurt by what this young man told us that day.

Then one day in 1973, a preacher by the name of Billy Graham came into town and he preached his heart out. One of the things he talked about was to make a public profession of faith in God. So, at the end of the service, I went forward to publicly repent of my sins. I turned away from my sins and asked Jesus into my life. I asked Him inside of my heart. I accepted Jesus Christ as my personal Savior that day. After this day, I had a greater desire to follow Christ, to pray and read my bible. I preached to my father to accept Jesus as his personal Savior as well. At looking back on my life, I realize that God had been

watching over me for my whole life. God kept my life protected from many kinds of sins and addictions that I could have gotten myself involved in when living in many of the communities that I had lived in while I was growing up. I thank God that He protected me before I even became a Christian in my life. What a wonderful God I serve.

Well, it's time for me to get on with my testimony. As an early Christian, my life was very rocky at first because I did not have a strong reference point as to what it meant to be a Christian. My brother John was a stronger Christian than I was. I had years of bad habits that needed to be changed. These changes did not happen overnight. In 1975 I was living with my mother and working for an insurance company in St. Paul. My brother John was living with my dad in Duluth. I got that terrible phone call that my father had passed away. This was very hard on me at the time because I was not sure of my father's true spiritual condition. My dad did not go to church but He had a bible that had several passages underlined in it. I have to leave it in the Lord's hands. Still today I ask myself if only I could have shared with my father more about God than what I did.

Well death and me must have a theme going on because I got married to the perfect woman for me and I am sure she was loved by God. As I was attending a church in Duluth I fell in love with Julie. I have never met a woman that I thought was as faithful to God as she was. It was Julie who held everything together in our family. She

came from a strong Christian family who I still love very dearly today. Julie was born with a severe birth defect. She was not even expected to live through one of her major surgeries at an early age of 5 months old. After she survived that surgery, she was not expected to reach adulthood. But she did. When I started dating Julie, she told me that she would not live a long life, but I had fallen in love with her and wanted to share the years that she did have with her. We had two loving children Jana and Jeremy who are strong Christians today. I love both of them so much. After being married 33 years, God took Julie home to be with him. The few hours after her death I wrote the following eulogy for Julie that I want to share with you now.

[My relationship with Julie started out in a small church in Duluth. I was asked to go on a camping trip with the young adults group. The first evening at the campfire, I looked through my sunglasses and saw Julie on the other side of the fire. I wondered how I could ever get to know her since I was very shy back then. The next day at the swimming beach, I was given a bottle of sunscreen and was told to have someone apply it to my snowy white back. I wanted to meet Julie, but was so shy that I didn't say anything to her. I just handed her the bottle and laid down on my beach towel beside her and she put the suntan lotion on my back. I wanted to date Julie but she would only date men that filtered through her screening process. Attending church was not enough. I had to pass

her special screening test that I will describe with the following story.

There was a group of people sitting on large logs around a campfire. It was dark with countless stars in the sky. All the people sitting around the fire were staring at its splendor. There was a small boy standing around the fire who could not open his eyes from birth. There was a young girl with a broken arm sitting on one of the logs with an open seat next to her. The boy asked if he could sit down next to her. She replied, you must describe the sky to me before you can sit down next to me. The boy walked over to the first man who was sitting around the fire and he had a broken leg. The boy asked him what the sky looked like but the boy paid too much attention to the cast on the man's leg. The boy did not report the proper answer to the young girl. He went around to each of the people around the fire asking the same question. Each person had some kind of injury that distracted him from reporting back the correct information to her. The boy was so distraught at coming back with the wrong answer that he turned to run away. As he turned to run, he tripped on a stone and fell flat on his back so hard that his eye's popped open. As he lay there in pain, he saw the splendor of the sky for the first time in his life. He got up from the ground but now had to wear a neck brace. He went over to the young girl and reported what he now saw. She then let him sit down on the log next to her. They were now staring at the heavenly expanse together. The young girl put her arm around the boy's waist and the

boy put his arm around the young girl's shoulder.

The story describes what I had to do to pass Julie's screening test. As I was growing up and I looked around for answers, I could only see faults with the churches and people who claimed to be Christians. It wasn't until I stared at the Scriptures that I realized that Christianity isn't about people; but about Christ. In passing the screening test, Julie said yes to start dating me.

Julie had to do a lot of work to bring me out of my shell. Julie loves to sing and I think she has the most beautiful voice I have ever heard. As we were dating, Julie warned me that she was born with birth defects and that she was not sure that she would be able to have children. She also told me that she would, at most, live to be 55 years old. This didn't matter to me. Julie and I were in love. We were engaged to be married four weeks after first meeting. 10 months later we got married. Although Julie had many medical difficulties, she was able to deliver two of the greatest children I know. Each of them has grown to love the Lord as she did. As the children were growing up, Julie was involved with making sure the children knew the Scriptures. Julie taught our children in the AWANA program and then coached them in the Bible quizzing program. Julie would work several hours each week in teaching them the Scriptures. I think Julie was a little on the competitive side trying to get her children to do well at the quiz meets.

Julie would always say that the man is supposed to be the spiritual leader of the family, but we all know that Julie

would often have to remind me to say the prayer before the meals. We would also read Scripture out loud to each other most nights before we would fall asleep. Julie had an active prayer life; I never heard her ask for healing in her own body. Julie never doubted God's presence in her life.

Julie was big into gardening. Julie also loved going places on vacation. We have visited about 32 states over the years. Julie's favorite things to do were to go camping and hiking. Julie enjoyed the things God has made rather than the things man has made in this world. At the end of a day, we would often sit around a campfire. On a clear dark night that sky would light up with untold splendor. We often wondered how much more was up there than what we could see with our physical eyes.

Over the years at the camp fire of life, I would fall off the log and put another cast on a part of my body. I have become ugly to look at from all my falls. Julie sits there with only the broken arm she had when I first met her. 18 months ago, Julie experienced a second terminal illness. She stood up on the log with her arms reaching toward the heavens. I grabbed her around the legs and told her she needed to sit down. She listened to me for a while.

For months now Julie has been asking me for permission to go home to be with Jesus. I have been telling her no. Before Julie's last two trips to the hospital, she told us what special music she wanted sung at her funeral service. She also made a list of items she owned and who she wanted to get some of them. Finally, when Julie was at

the Fairview ridges hospital and asked me again to go home, I told her yes. She looked at me and said this is the first time you said I could go. She took my permission and ran with it. She was soon transferred to the University of Minnesota hospital.

Like the campfire smoke that rises into the sky, Julie's spirit rose up into the heavens of God's glory. Julie got her wish and is going to enjoy the things God has made in heaven now.

I was holding on so tightly to Julie that for a moment I felt all alone. But then I looked around me and I could see many other people sitting on the campfire logs, some of them looking as crippled as I am were staring up at God's splendor. I realized that I am not alone. I again looked around the campfire and saw many empty logs for people to sit down on. As I have told you already, Julie was a woman of prayer. The number one thing Julie prayed for was that our family and friends would sit around the campfire of life with us.

Julie, I love you so much. Thank you for the 34 years I've known you. There is no one else I would rather have spent my life with than you. The thing I want most now, is to be with you, but I know that my time has not yet come. I am more determined now to sit on this log without falling off, than ever before. I have many friends at the campfire to keep me strong until we see each other again in paradise. You will be greatly missed.

From your loving husband Jay]

As I have already told you, Julie was sick from birth and was not even expected to live to adulthood. I knew from the day I married Julie that my days with her were numbered, but I loved her and if we could only share a few years together, that would have been fine. But as it was, God blessed both Julie and I by giving us many years of marriage together. Not only that but our wonderful Savior gave us two wonderful God loving Children. How great is our God. Julie said to me that if one person would come to Christ as a result of her death, that it was worth it. Up until the time the nurse said that Julie had passed away, I sincerely thought that God was going to miraculously turn Julie's health direction around and heal her. I really did feel the presence of God with me even though my prayers for Julie to be healed were never answered, or at least not in the way I had expected them to be answered. You see, to give Julie permission to die is one thing, but then to have God miraculously heal Julie would be another. I was thinking, God what a testimony to your healing powers this would be. But this did not happen. I know that Julie is in much better hands being with Jesus Christ than what she would have been living with me. And for a person who has eternal life, death can and was healing for Julie because she is in the presence of the Lord, free from pain.

This may seem odd, but with other people around me I could not shed any tears for Julie. Of course, I shed plenty of them when I was alone by myself. As for me, I have felt the presence of God so strongly that I believe that I have an even better relationship with God through this

whole experience. I have come to realize that I could never love Julie as much as God does. I also realize that Julie could never be in better hands than out of my hands and into the hands of Christ Jesus. When Julie did pass away, I felt a horrible empty feeling inside of me even though God was close to me. It was as if I was only half a man. It was not long after Julie passed away that I said to myself that I cannot blame God for this because he works all things together for good for those who love him. I thought to myself, I do not like living alone and Julie has told me that she does not want me to be alone. I want someone to sit next to when I go to church. Julie and I shared in most of the church functions together that we were involved in. I wanted someone to share my worship of God with. I needed to love another person the way I loved Julie in my life.

I did not see God bringing a woman knocking on my door to be my next wife so I decided that I was going to be active and do something about it. I went online to a Christian dating service and aggressively searched for a Godly woman I could spend the rest of my days serving God with. After dating a few other women, I started dating Paula. Now Paula was very smart and told me after the second date, that if I was going to date her that I had to stop seeing and communicating with all other women. She told me that she would know if I was the one for her after two months. I agreed to Paula's terms. It was easy to agree to Paula's terms. Well to make a long story short, Paula was a fine Christian woman. One of the things that

impressed me about Paula was her love for God through her church and small group. On one of our dates, we went out with one of the small church groups for street evangelism. How many of you have done that on one of your first dates. WOW, to me, this was the type of woman that I needed and what I was looking for in my life.

One of the things about dating people my age is the fact that they have families. So, you are not only marrying the person, but the whole family as well. Paula's family has treated me very well. I fell in love with not only Paula, but with her family as well. I am glad that God has brought Paula and me together. We both love the Lord and have a burden for the lost souls in the world who need to hear about the gospel of Christ. After being a widower for one year, Paula and I were married. When I lost my former wife Julie to illness, I did not know Paula. I am glad that I never knew Paula while Julie was alive because I would feel guilty for getting married so soon to her after Julie's death. I had such a wonderful marriage with a Godly woman like Julie, that I wanted to have that same wonderful relationship with another woman. Paula so far has been just what the doctor ordered. I wanted a Godly woman and I got a Godly woman. It is hard to explain to people why I moved so fast in getting married again. But I see God loving Julie, me and Paula through the whole process. Paula and I have been married for a few years now and it is because of the experiences we have had in our life and the desire we have to see other people saved that I wanted to write this testimony for you to read.

Paula and I have a strong desire to see as many people as we can come to love Christ the way we love him. Paula has really challenged me in sharing my belief in God with other people. My hope is that by sharing what I know about God with other people would challenge them to have a bigger hunger to know Him better for themselves. I want to thank you for taking time in reading this testimony. I hope that it will give you a better understanding of who God is and how much he loves you.

Paula and I have written a book named "Please pass the PEW" about how you can know God at a personal level. It will be a read like you have never experienced before. One of the places you can find this book is at [Amazon.com](https://www.amazon.com).